CFS-F5L

CFS-F5L

AEP Model
UK Model

FM/MW/SW/LW STEREO
CASSETTE-CORDER

'Dolby' and the double-D symbol are the trade marks of Dolby Laboratories. Noise reduction system manufactured under license from Dolby Laboratories.

SPECIFICATIONS

Radio Section

Frequency range	FM 87.5–108 MHz MW 530–1,605 kHz (566–187 m) LW 150–350 kHz (2,000–857 m) SW 6–18 MHz (50–16.7 m)
Antennas	FM/SW: Telescopic antenna External antenna jacks MW/LW: Built-in ferrite bar antenna

Tape recorder section and general

Recording system	4-track 2-channel stereo
Fast winding time	Approx. 2 min. with Sony Cassette C-60
Frequency response	50–16,000 Hz (with metal cassette, with the IV METAL EQ button depressed and BIAS button depressed)
S/N	DOLBY NR OFF: 40 dB DOLBY NR ON: improved by 5 dB at 1 kHz, 10 dB at above 5 kHz
Total harmonic distortion	5%
Wow and flutter	0.08% (WRMS)
Power requirements	AEP model: 220 V ac, 50 Hz UK model: 240 V ac, 50 Hz 12 V dc, eight batteries, IEC designation R20 (size D) 12 V car battery with optional Sony Car Battery Cord DCC-120 24 V car battery with optional Sony Car Battery Cord DCC-240
Power consumption	AEP model: 27 W ac UK model: 24 W ac
Battery life	Approx. 6 hours of continuous recording with the Built-in Microphones using Sony SUM-1S Super Batteries
Dimensions	Approx. 522 × 297 × 132 mm (w/h/d) ($20^5/_8 \times 11^3/_4 \times 5^1/_4$ inches) incl. projecting parts and controls not incl. handle
Weight	Approx. 6.7 kg (14 lb 12 oz) incl. batteries
Speakers	Two-way, coaxial type Approx. 16 cm ($6^1/_2$ inches) dia. woofers Approx. 5 cm (2 inches) dia. tweeters
Power output	3.5 W × 2 (at 10% harmonic distortion) at dc operation
Inputs	Two phono input jacks (phono jack) sensitivity 4.35 mV (–45 dB) input impedance 50 kilohms One mixing microphone input jack (minijack) for low impedance microphone sensitivity 0.78 mV (–60 dB)
Outputs	Two external speaker jacks (minijack) for 4-ohm to 8-ohm impedance speaker Headphone jack (stereo binaural jack) for 8-ohm impedance headphones
Other jacks	Remote control jack (8 pin connector) Record/playback jack (5 pin DIN jack)

RM-23 Remote Control Unit section

Microphone	Omni-directional electret condenser microphone
Microphone battery	1.5 V dc, one battery, IEC designation R03 (size AAA)
Microphone cable	Approx. 3 m ($9^7/_8$ feet) with miniplug
Remote control cable	Approx. 3 m ($9^7/_8$ feet) with 8 pin connector
Dimensions	Approx. 33 × 156 × 19.5 mm (w/h/d) ($1^5/_{16} \times 6^1/_4 \times {}^{25}/_{32}$ inches) incl. projecting parts and controls not incl. cables
Weight	Approx. 260 g ($9^1/_4$ oz) incl. battery

— Continued on page 2 —

Tape Transport Mechanism	MDS-80S2

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SONY®

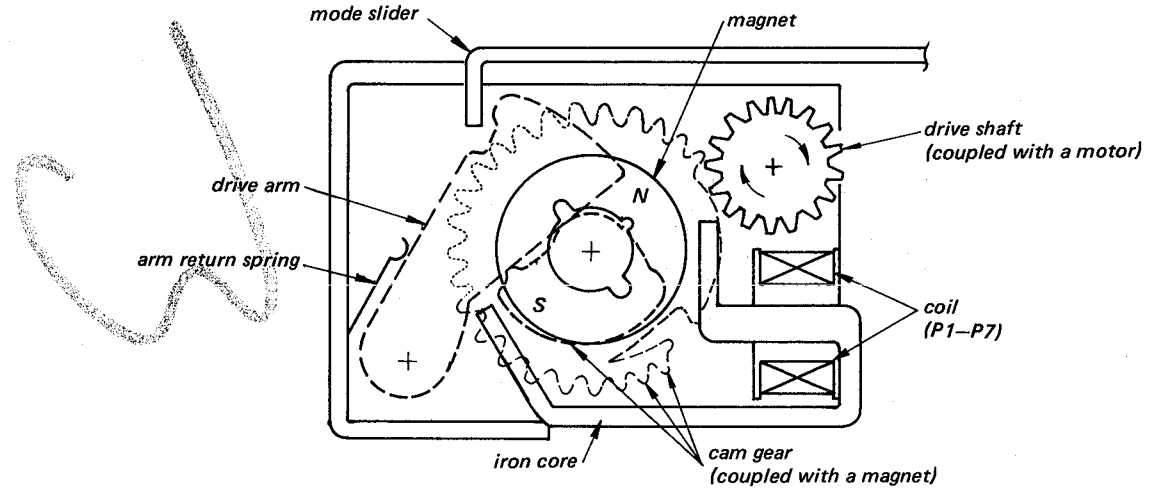
SERVICE MANUAL

MEMO

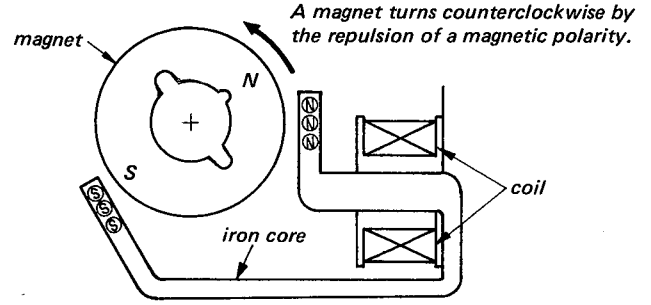
SECTION 1
OUTLINE

Explanation of the mode selection mechanism

1. Static Condition
(There is the same mechanism for each mode)

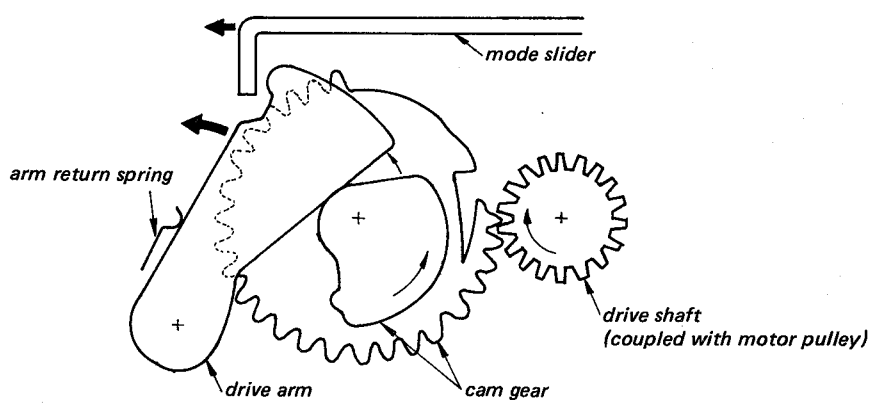


2. When currents flow in the coil



3. After currents flow in the coil (1).

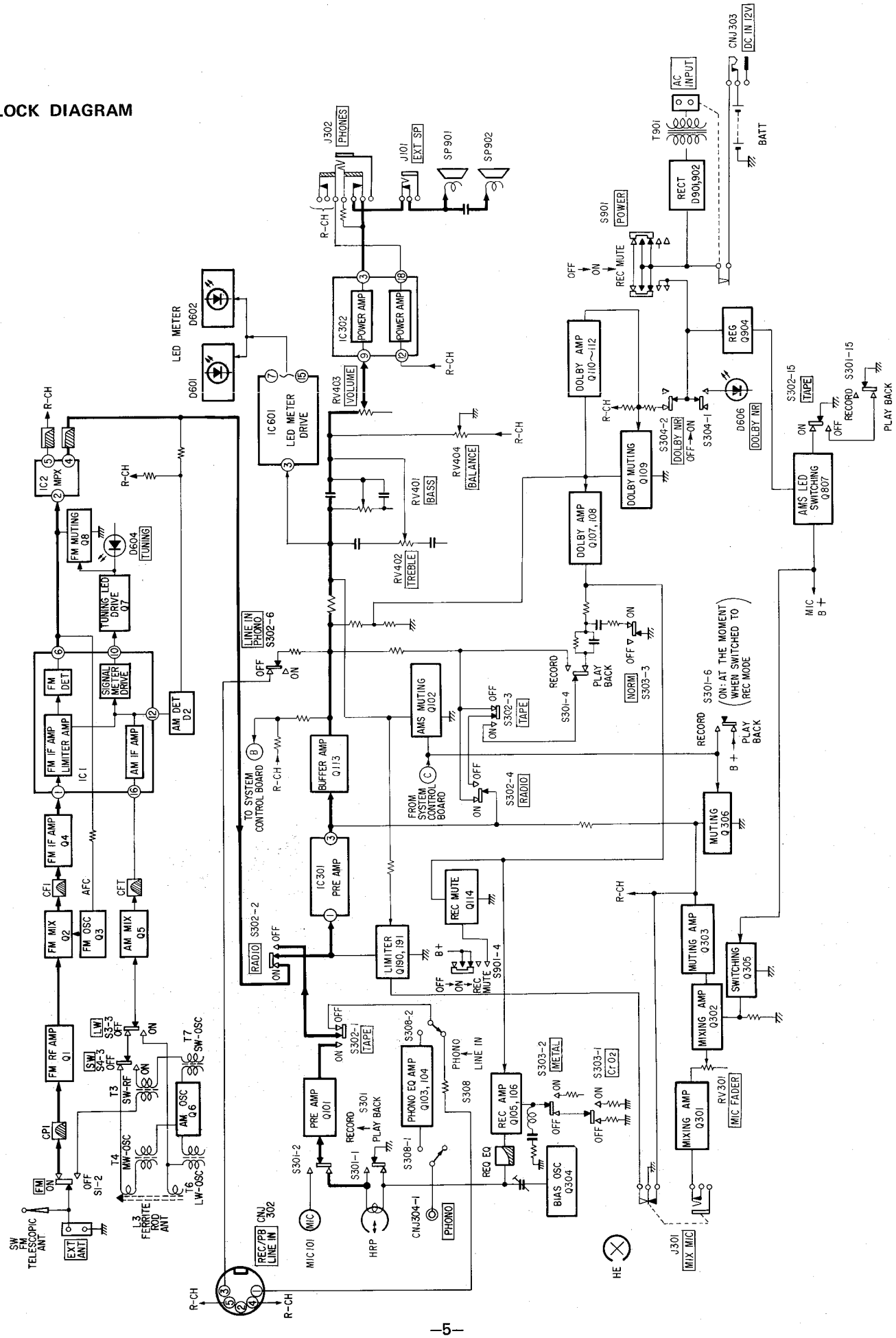
The cam gear, coupled with a magnet, contacts with the drive shaft first and turns further being driven by the drive shaft. Then, the drive arm pushes the mode slider and the mode changes.

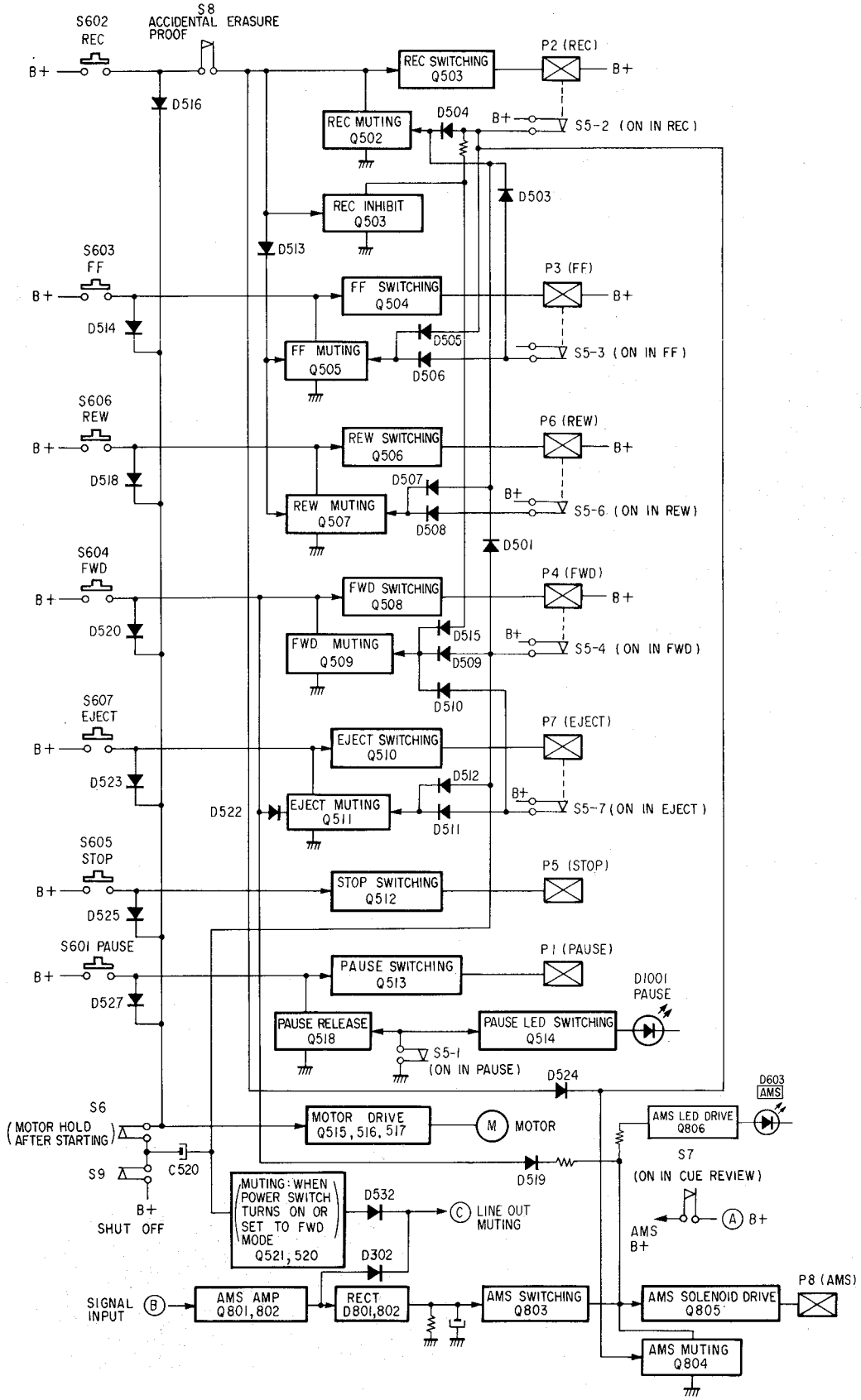


4. After currents flow in the coil (2).

When the cam gear turns 3/4 turns, the cam gear and the drive shaft come off. With the arm return spring, the cam gear returns to the initial position.

BLOCK DIAGRAM





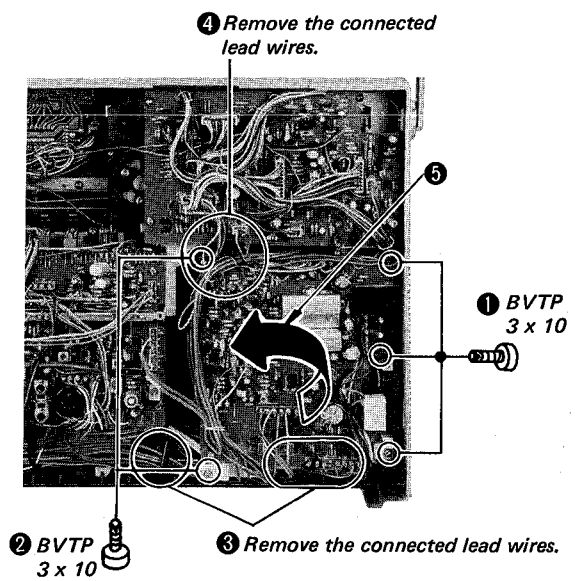
SECTION 2
DISASSEMBLY

REAR CASE REMOVAL

Remove eight screws.

POWER SUPPLY BOARD REMOVAL

Follow the disassembly procedures ❶ – ❺ and remove the board in the direction of arrow.



METER BOARD REMOVAL

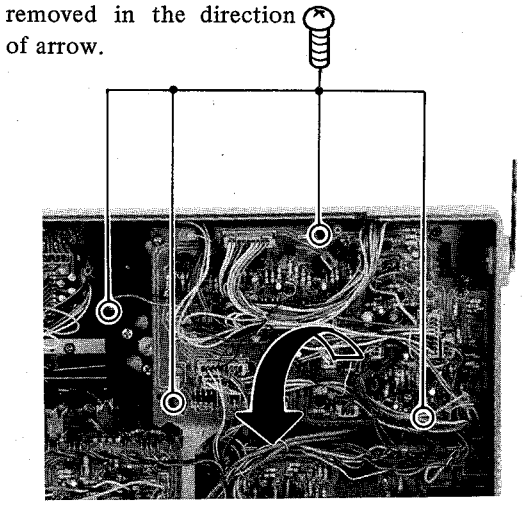
Remove three screws and two claws.

SYSTEM CONTROL BOARD REMOVAL

Remove two screws and the wire binder.

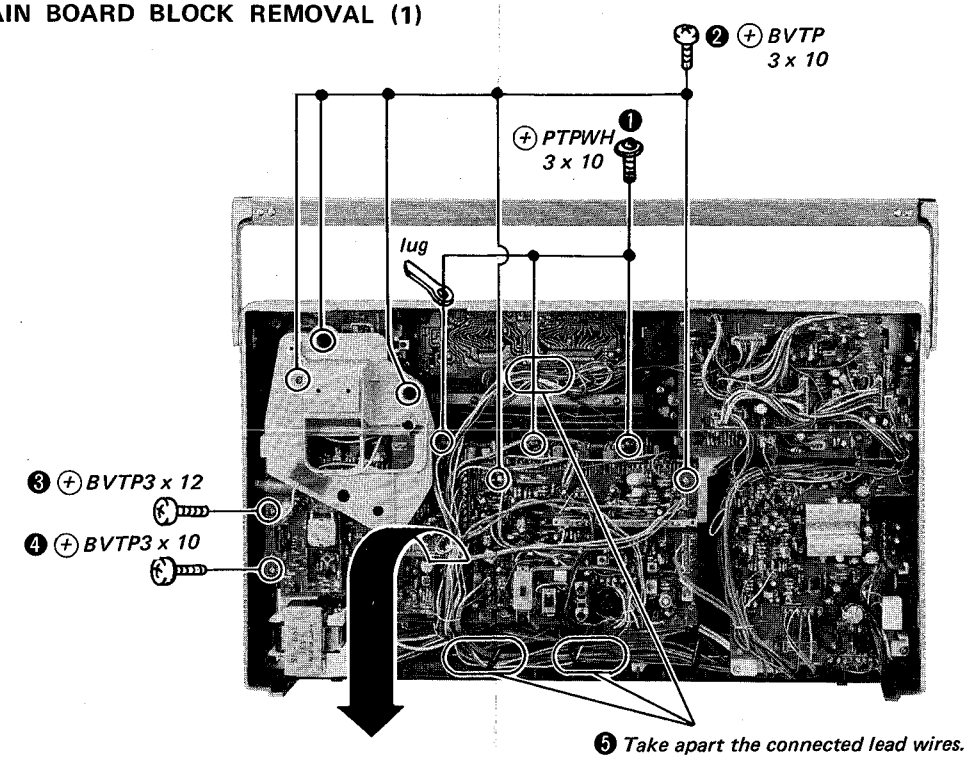
MECHANICAL BLOCK REMOVAL

Remove four screws and open the cassette lid. Then, remove the connected lead and pull out the connector.
Mechanical block can be removed in the direction of arrow.

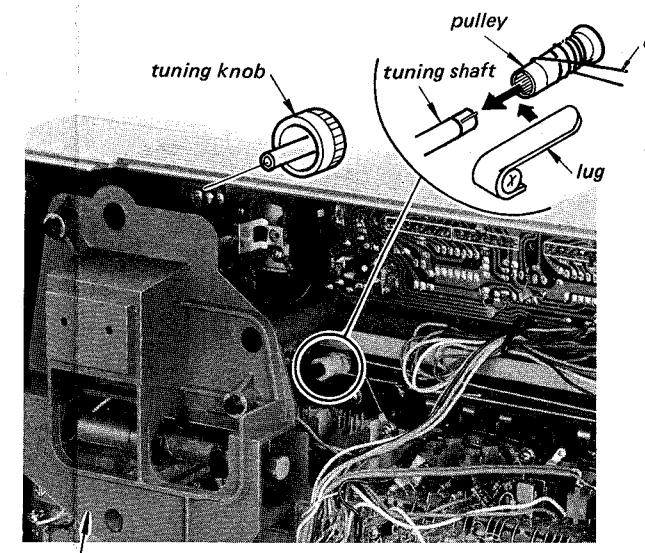


Remove the power switch board.

MAIN BOARD BLOCK REMOVAL (1)

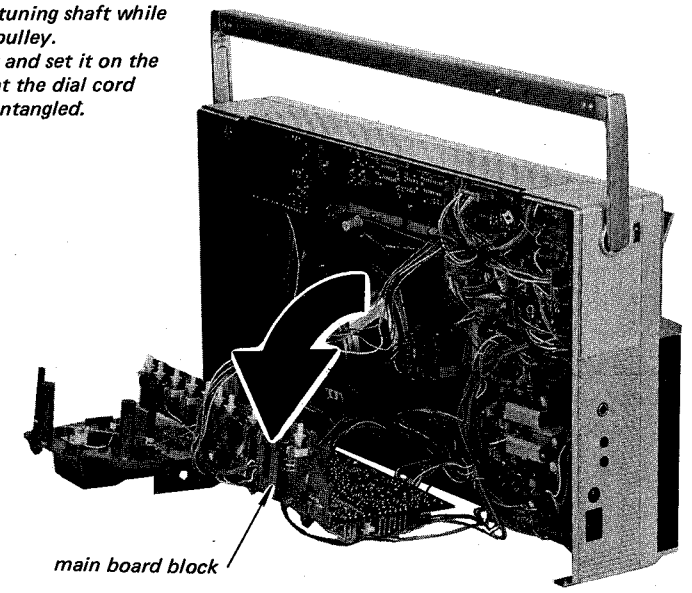


MAIN BOARD BLOCK REMOVAL (2)



Pull out the tuning shaft while holding the pulley.
Bend the lug and set it on the pulley so that the dial cord doesn't get entangled.

MAIN BOARD BLOCK REMOVAL (3)



CONTROL BOARD (1), (2) REMOVAL

Remove four screws and four knobs.

CORD STRINGING OF DIAL POINTER (See page 9.)

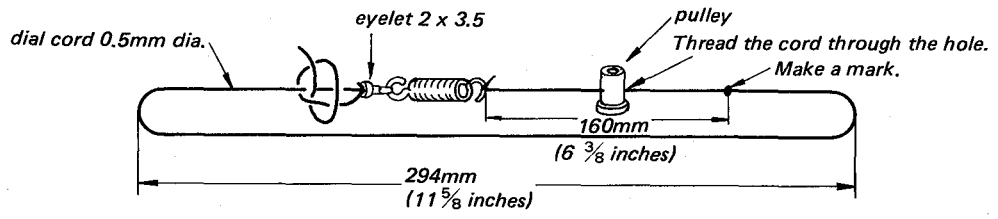
CORD STRINGING OF DIAL DRUM (See page 10.)

LIMITER BOARD REMOVAL

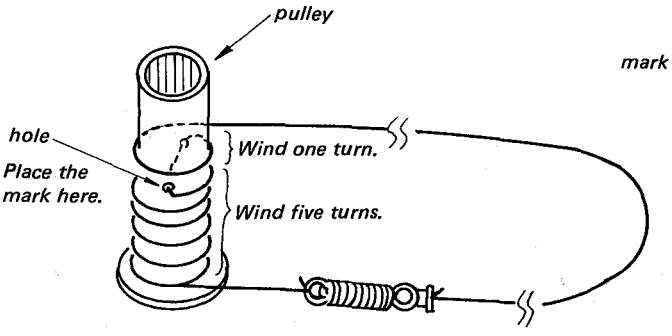
Remove two screws.

CORD STRINGING OF DIAL POINTER

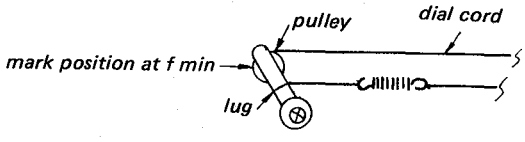
1. Dial Cord Preparation



2. Dial Cord Stringing



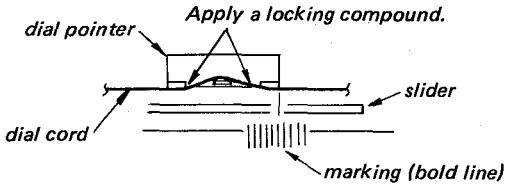
B. *Erect the bent lug.*
Turn the tuning shaft counterclockwise (f min).
Insert the tuning shaft in the pulley.



A. *Hold the pulley temporarily by bending the lug.*

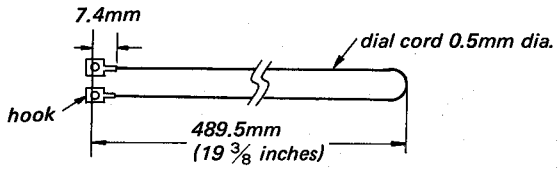
3. Dial Pointer Setting

Place the dial pointer and match its right edge on the bold line.



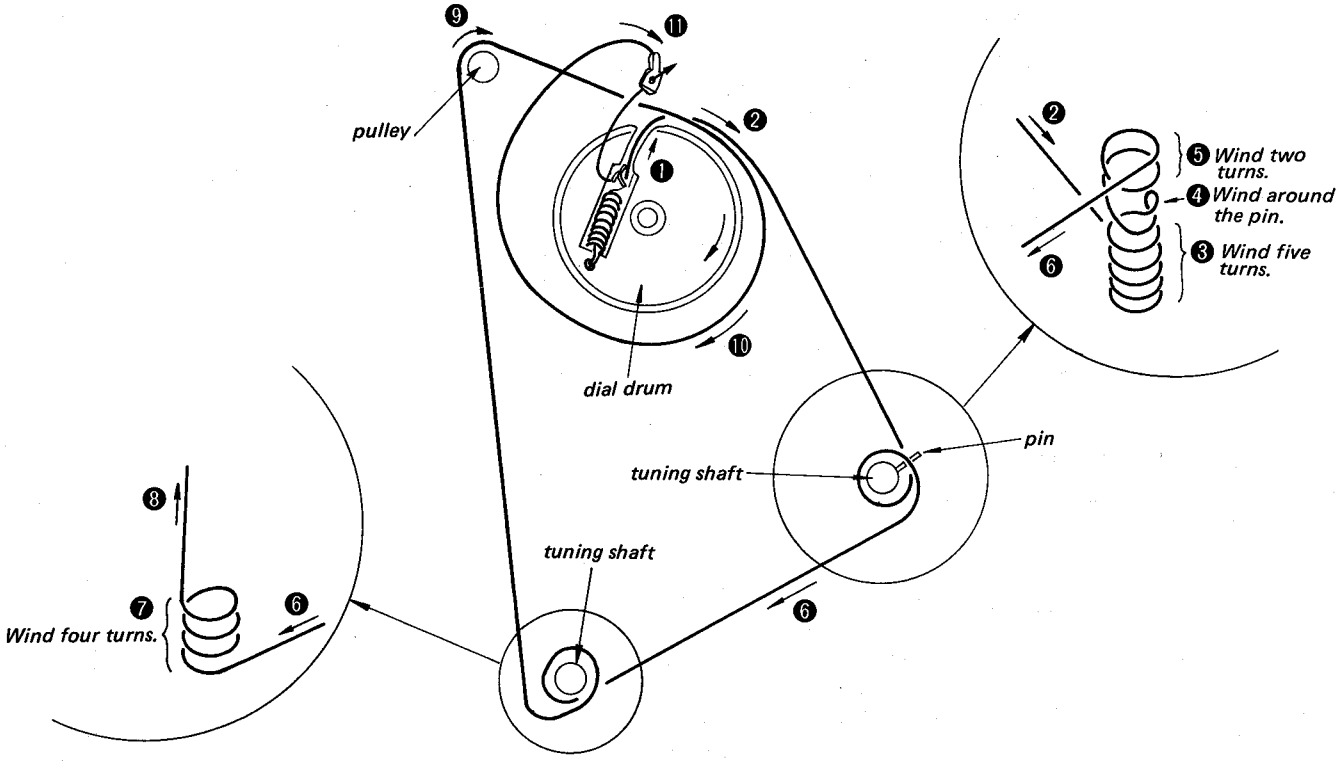
CORD STRINGING OF DIAL DRUM

1. Dial Cord Preparation



2. Dial Cord Stringing

- Turn the dial drum fully clockwise.
- Proceed in the numerical order given.



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Tape Transport Mechanism Type	MDS-80S2	
	Specification	Test Equipment
Forward Torque	25–50 g·cm (0.34–0.69 oz·inch)	Sony torque meter CQ-102C
Fast Forward And Rewind Torque	70–115 g·cm (0.98–1.59 oz·inch)	Sony torque meter CQ-201B
Back Tension Torque	2.5–5 g·cm (0.03–0.07 oz·inch)	Sony torque meter CQ-102C
Tape Pulling Force	More than 160 g (5.64 oz)	Sony tape tension meter CQ-403

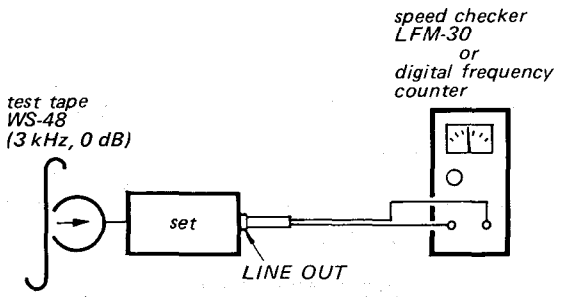
Tape Speed Adjustment

Setting:

Supply 12V dc to the DC IN jack.

Procedure:

Mode: playback

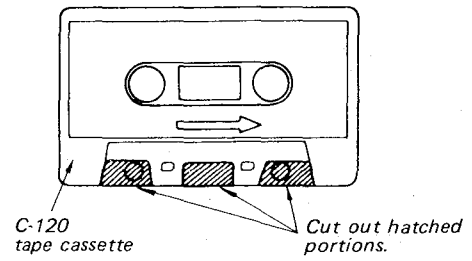


Specification:

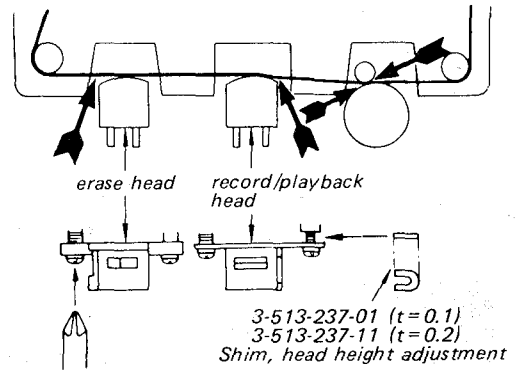
Speed checker	Digital frequency counter
−2.5 to +3 %	2925 to 3090 Hz

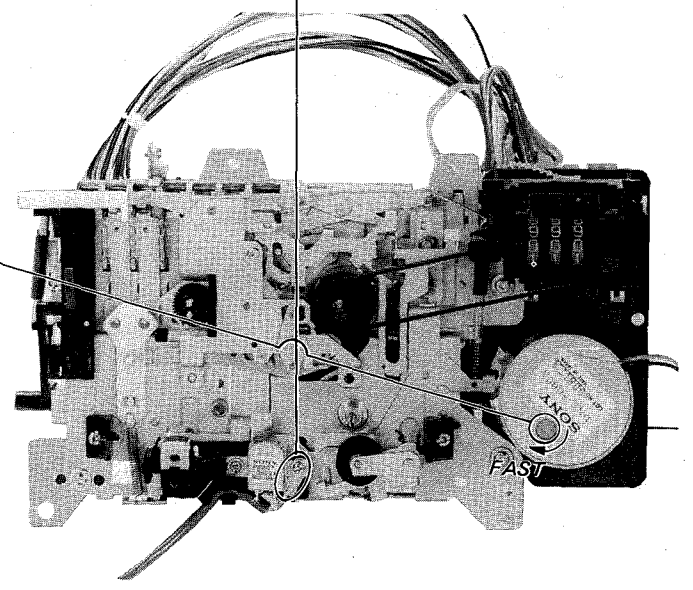
Head Height Adjustment

1. Prepare an adjustment cassette as shown below.



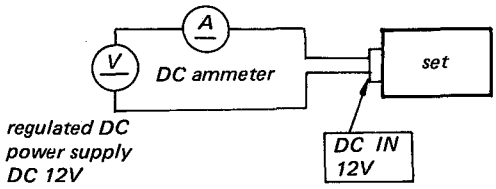
2. In record mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions of arrow.



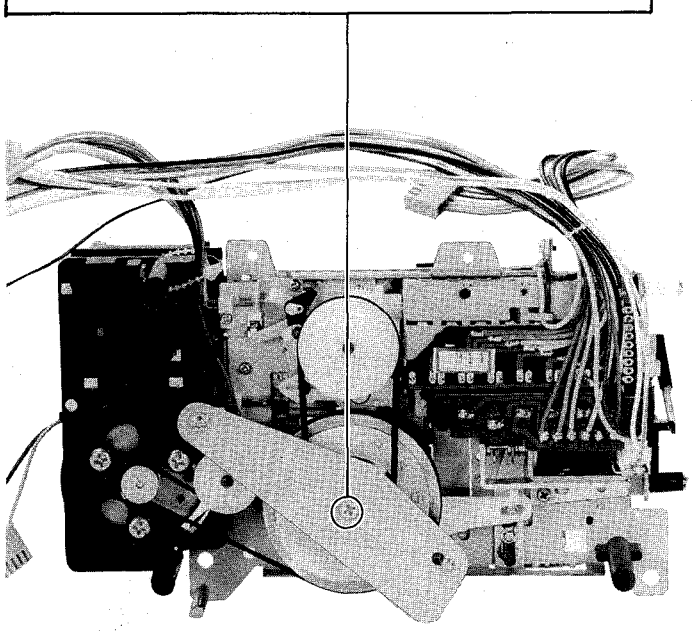


3-2. ELECTRICAL ADJUSTMENTS

Flywheel Thrust Play Adjustment



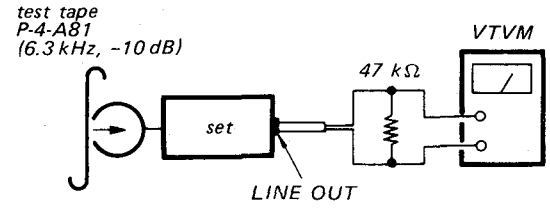
1. Loosen the thrust screw enough.
2. Tighten the thrust screw gradually and hold it just when the current suddenly increases, then turn the thrust screw ¼ turn counterclockwise.
3. Lock the screw with suitable locking compound.



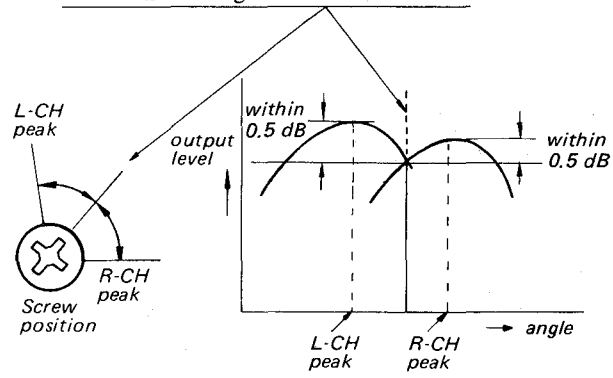
Record/playback Head Azimuth Adjustment

Procedure:

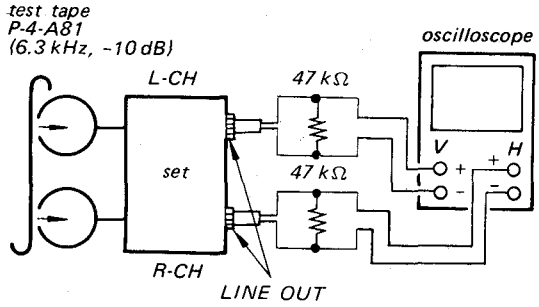
1. Mode: playback

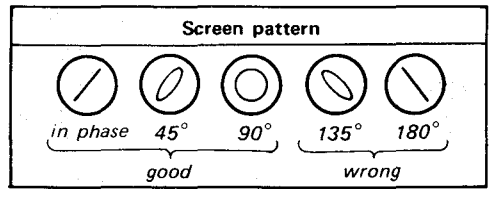


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5 dB.

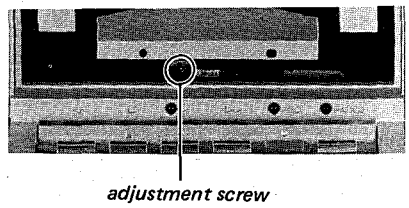


3. Phase Check
   Mode: playback





Adjustment Location:

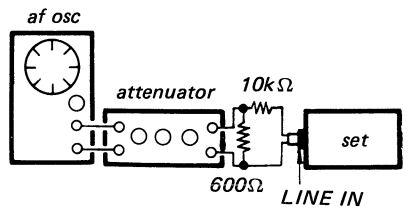


Level Meter Calibration

Setting:

FUNCTION switch:	LINE IN
LINE IN/PHONO switch:	LINE IN

Procedure:



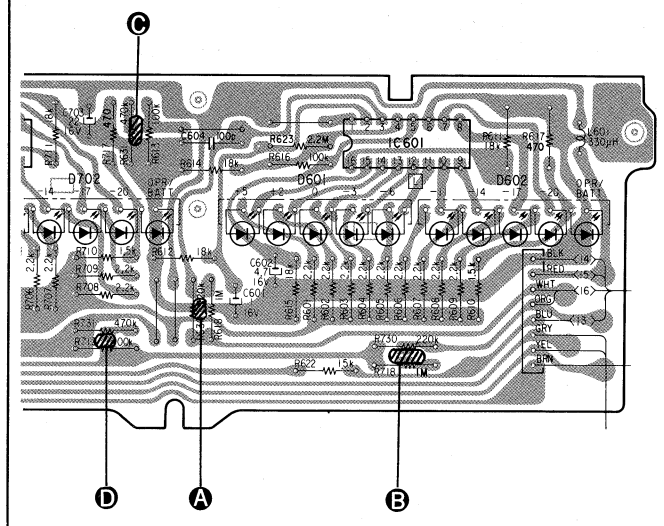
Apply 1kHz signal (−5dB, 0.44V) to LINE IN and make sure that the LED of 0dB lights up.

Adjustment Location: meter board

Change the pattern connection so that the LED of +2dB lights up or blinks when 1kHz signal (−3dB, 0.55V) is applied to LINE IN.

For the LED lighting up: Solder the patterns Ⓐ, Ⓑ

For the LED going out: Solder the patterns Ⓒ, Ⓓ

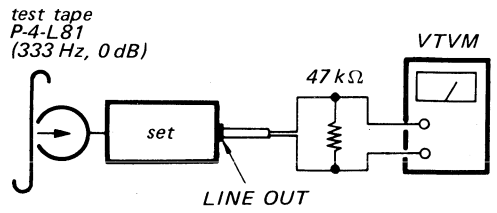


Playback Level Adjustment

Setting:

EQ switch:	NORMAL
DOLBY switch:	OFF

Procedure:



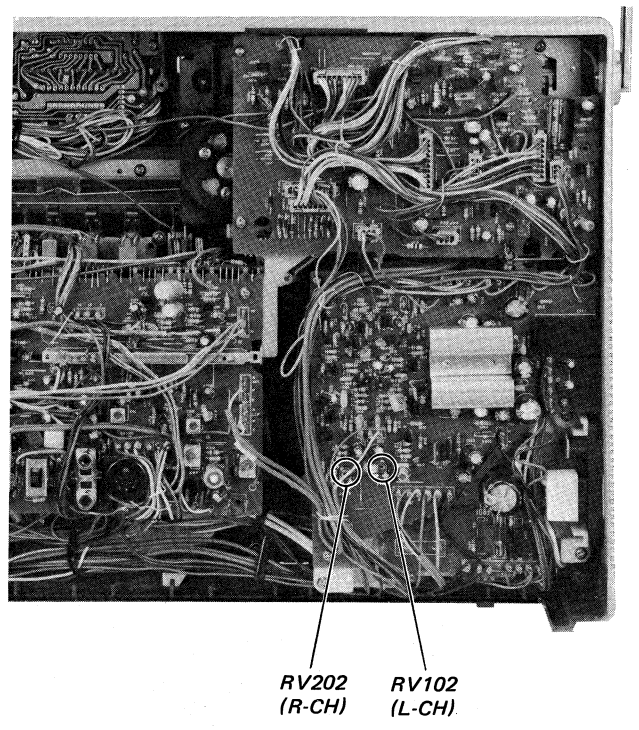
Specification:

LINE OUT level: −2 dB (0.62 V)

Level difference between channels: less than 0.5 dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location: power supply board (2)



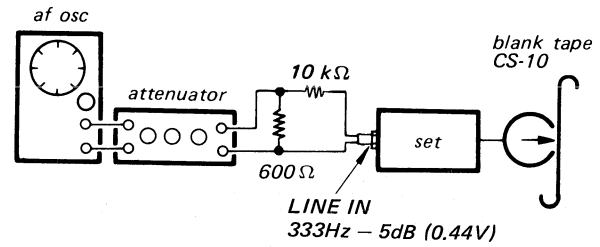
Record Level Adjustment

Setting:

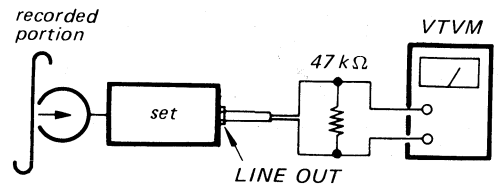
FUNCTION switch:	LINE IN
LINE IN/PHONO switch:	LINE IN
TAPE SELECT switch:	EQ . . . NORMAL TYPE I BIAS . . . TYPE I, II
DOLBY switch:	OFF

Procedure:

1. Mode: record



2. Mode: playback (FUNCTION switch: TAPE)



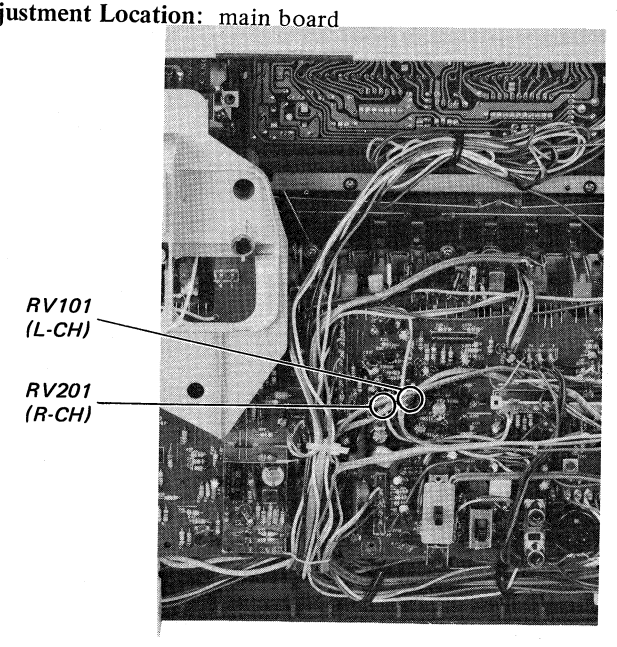
Play back the recorded tape and measure the LINE OUT level.

Adjust RV101/RV201 to meet the specification and repeat the steps 1 and 2.

Specification:

−4 dB ± 0.5 dB

Adjustment Location: main board



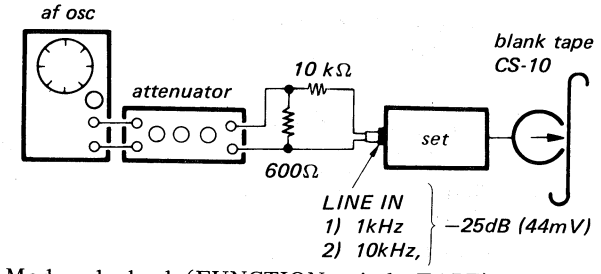
Record Bias Adjustment

Setting:

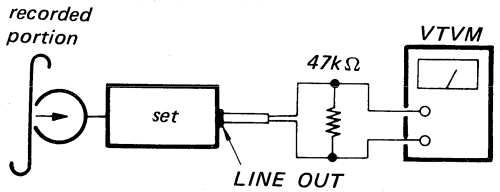
LINE IN/PHONO switch:	LINE IN
FUNCTION switch:	LINE IN
TAPE SELECT switch:	EQ . . . NORMAL TYPE I BIAS . . . TYPE I, II
DOLBY switch:	OFF

Procedure:

1. Mode: record

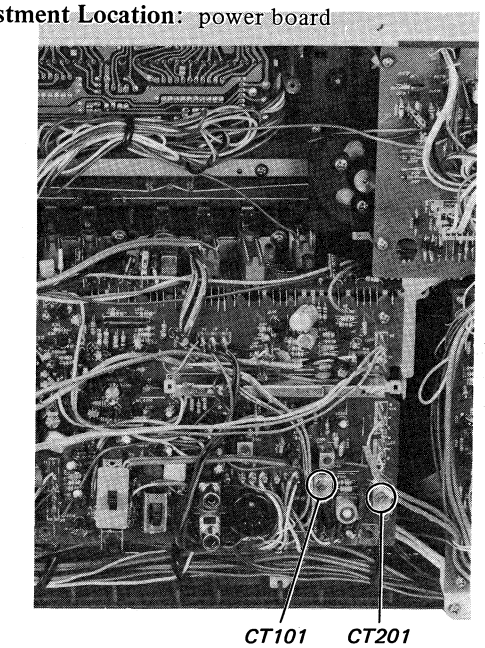


2. Mode: playback (FUNCTION switch: TAPE)

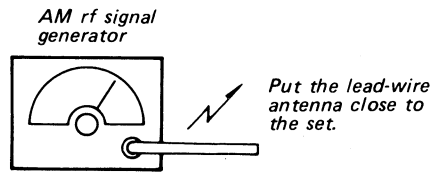


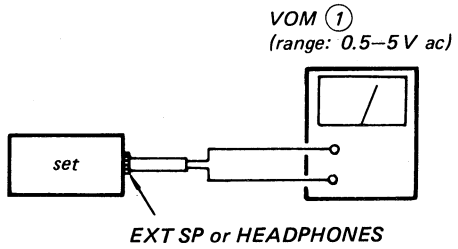
3. Play back the recorded portion of the tape and check that the level difference between 1kHz signal and 10kHz signal is −1dB to −7dB.
   If not, adjust CT101 and CT201 and repeat steps 1 to 3.

Adjustment Location: power board



MW SECTION

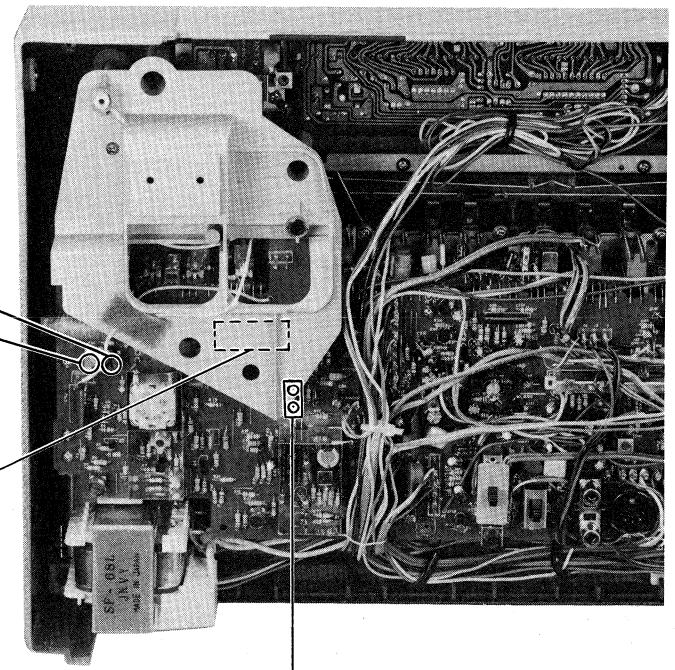


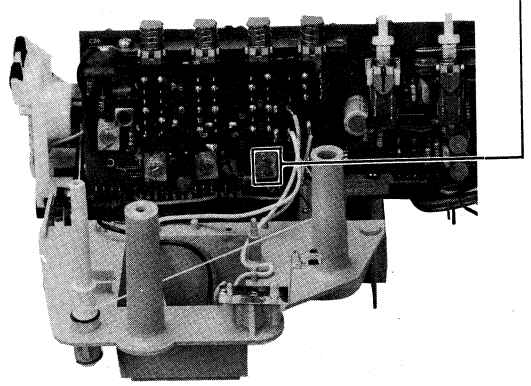


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
1,680kHz	520kHz
CT6	T4

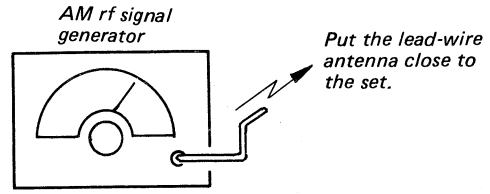
MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
620kHz	L3
1,400kHz	CT3

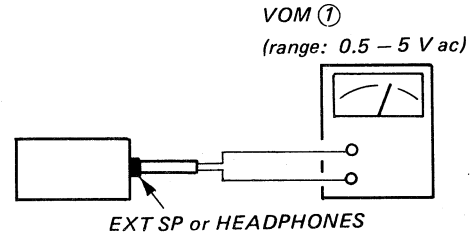




CFT
455kHz
Adjust for a maximum reading on VOM ①.
MW IF ALIGNMENT

SW/LW SECTION

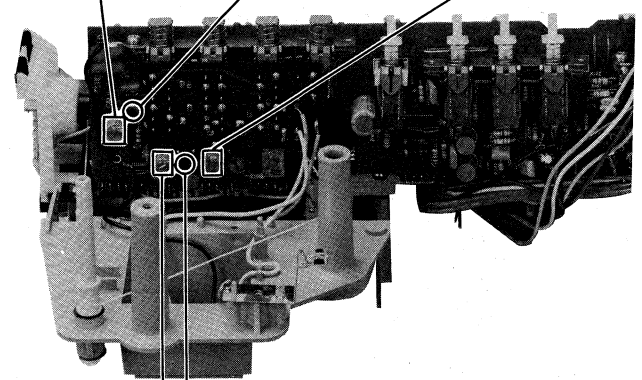




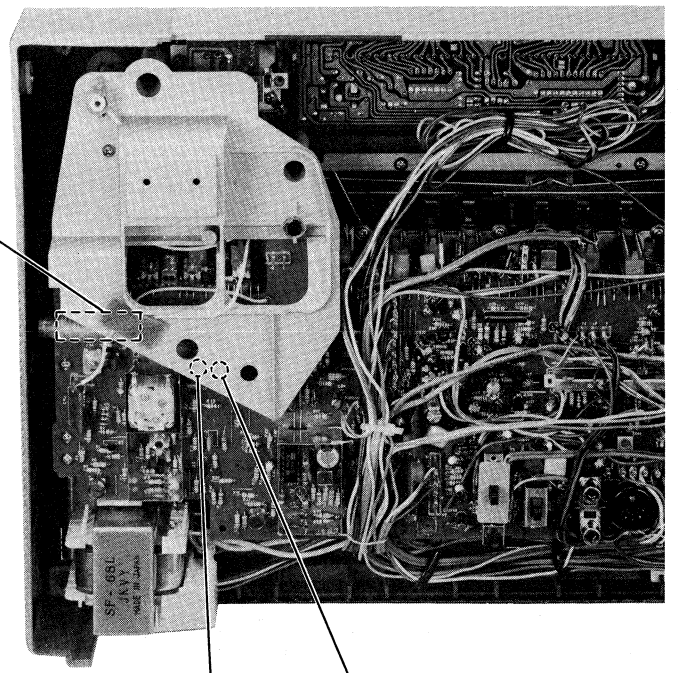
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
160kHz	L4
330kHz	CT4

SW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
18.4MHz	5.8MHz
CT8	T7

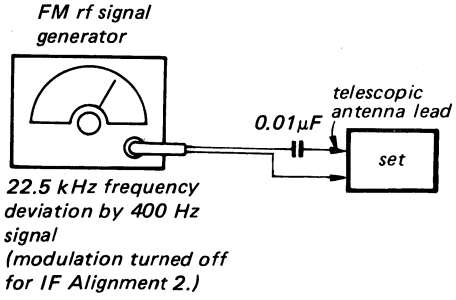


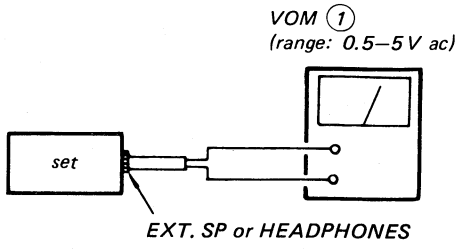
SW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ①.	
5.8MHz	T3
18.4MHz	CT5



CT7	T6
365kHz	145kHz
Adjust for a maximum reading on VOM.	
LW FREQUENCY COVERAGE ADJUSTMENT	

FM SECTION


FM rf signal generator
telescopic antenna lead
0.01μF
set
22.5 kHz frequency deviation by 400 Hz signal (modulation turned off for IF Alignment 2.)



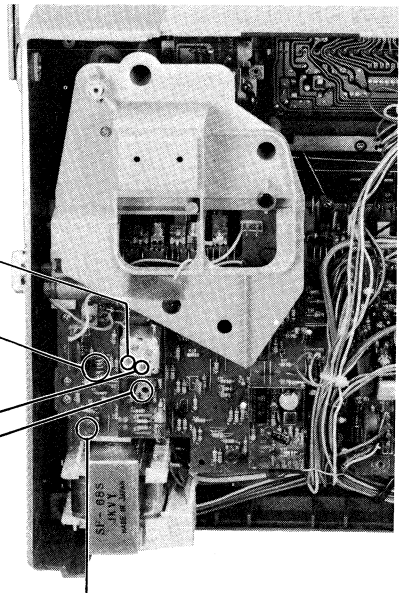
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM 1 .	
87.1MHz (87.5)	108.5MHz (108)
L1	CT1

( ): in West Germany

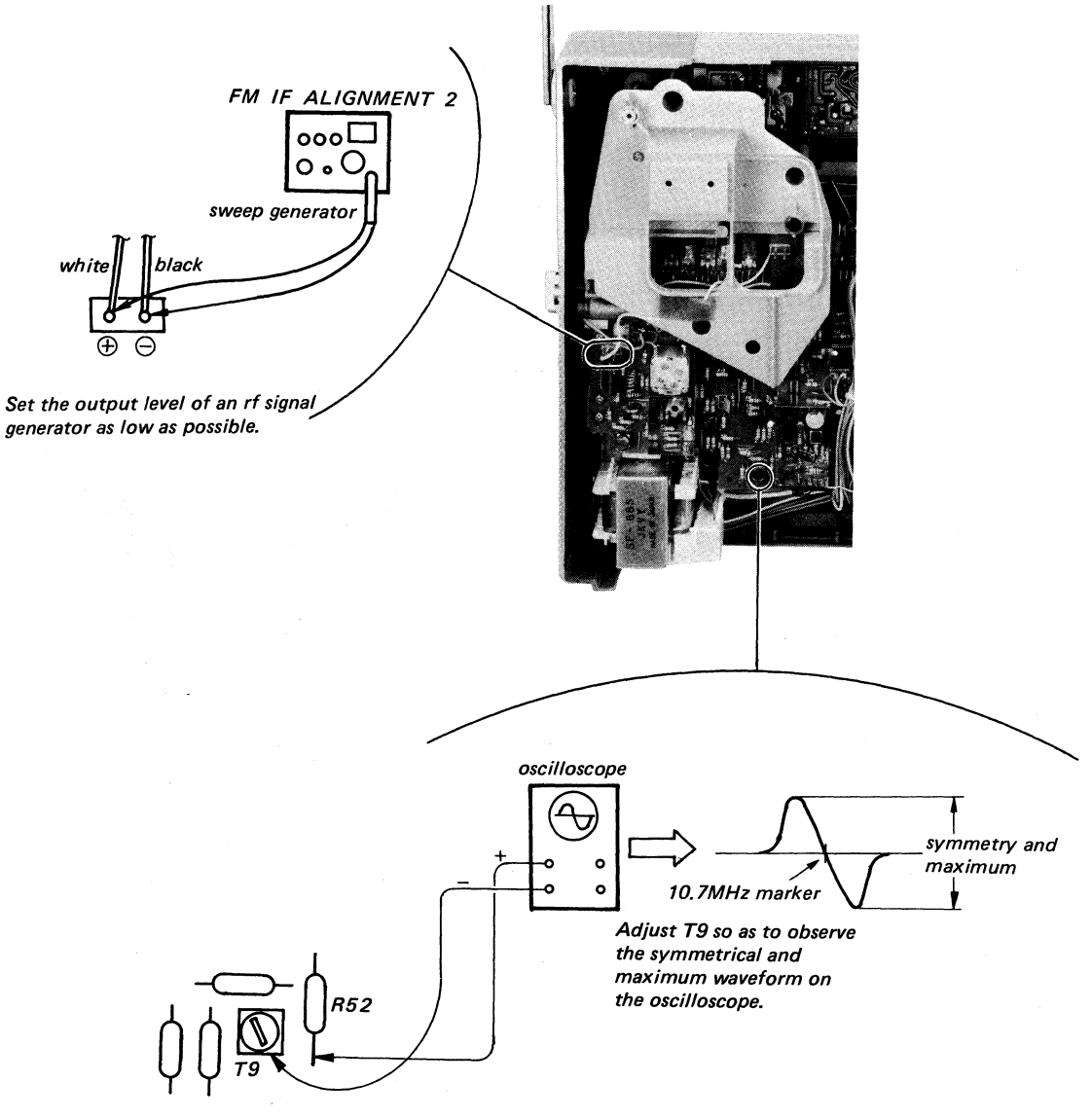
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM 1 .	
108.5MHz (108)	CT2
87.1MHz (87.5)	L2

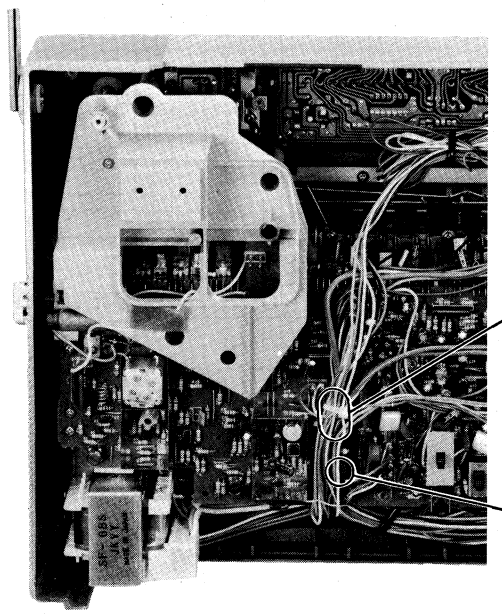
( ): in West Germany



T1
Adjust for a maximum reading on VOM (1).
FM IF ALIGNMENT 1 (10.7MHz with modulation)

FM IF ALIGNMENT 2
No Modulation 10.7MHz

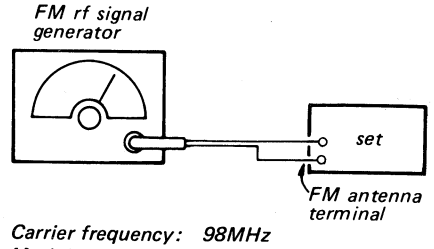




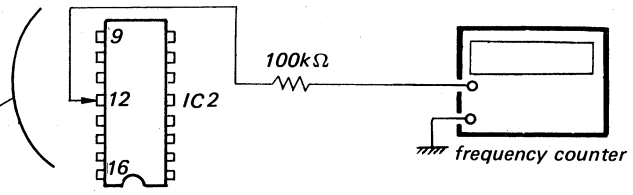
19 kHz Adjustment

A) Regular Method

Procedure:



Carrier frequency: 98MHz
Modulation: 1kHz, 22.5kHz deviation
Output level: 563μV (55dB)

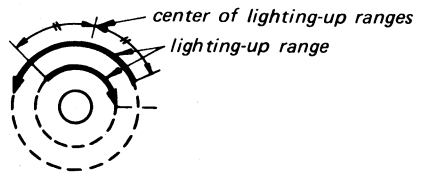


1. Tune the set to 98 MHz.
2. Adjust RV1 for 19 kHz ±30 Hz on the counter.

B) Simple Method

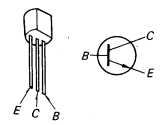
Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RV1 clockwise or counterclockwise and memorize the lighting-up range of the stereo lamp.
3. Secure RV1 at the center of the lighting-up range of both turns as shown below.

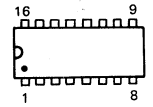


Semiconductor lead layouts

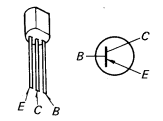
2SC930, 2SC1362
2SC1364, 2SC1363
2SC945, 2SC1345



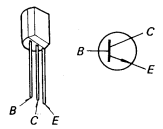
KB4419
LA3361



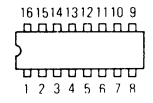
2SA733



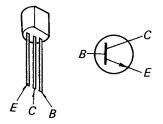
2SC710-13
2SC710-14



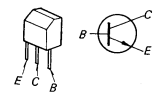
LB1409



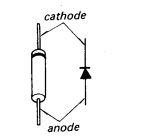
2SC1345



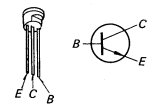
2SD773



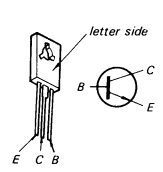
1T22AM **1T40**
10E1
10E2
1S1555
RD3.0E
RD5.6E
RD9.1E
SD113



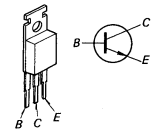
2SC668



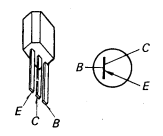
2SD998



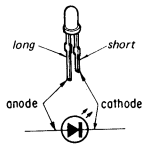
2SC1173



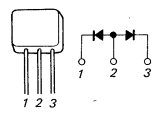
2SA1027R



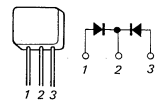
SLP231B (GREEN)
SLP131B (RED)



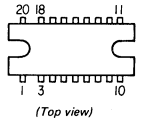
M1-151R



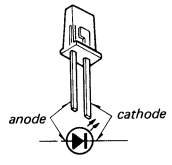
M1-151



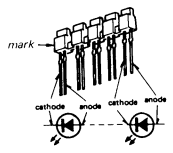
LA4125T



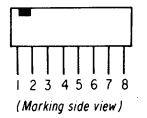
SLP141B
SLP241B
SLP341B



SLP252B



BA328



CIRCUIT DESCRIPTION

See page 24.

FWD

1. When the FWD button (S604) is pressed, via S604 and R525, B+ turns on Q508.
2. Currents flow in the FWD solenoid (PM4) so that the mode selection mechanism activated.
3. The FWD switch S5-4 turns on mechanically.
4. Via D509 and R527, B+ turns on Q509 so that the FWD button is inhibited.
5. Via D501 and R532, B+ turns on Q502 so that the REC button is inhibited. Likewise via D512 and R542, B+ turns on Q511 and the EJECT button is inhibited.
6. Via S5-4, D542, R510, D532 and D301, B+ turns on Q102 that mutes the starting noise. After that, the muting stops since Q520 turns on and Q519 turns off.
   When the power switch turns on, via C520, R510, D532 and D301, B+ turns on Q102 that mutes the switching noise.
7. With the aid of the motor torque, the mode selection mechanism works. So the motor has to start initially to trigger the mechanism when the mode button is pressed.
   When the FWD button is pressed, via D520, D517, R515 and R514, B+ turns on Q515 and Q516. Then the motor starts.
   After starting, the motor-hold switch (S6) is turned on mechanically and the motor keeps rotating.

FF

1. When the FF button (S603) is pressed, B+ turns on Q504 via S603 and R537.
2. Currents flow in the FF solenoid (PM3) that activates the mode selection mechanism.
3. The FWD switch S5-3 turns on mechanically.
4. Via S5-3, D506 and R538, B+ turns on Q505 so that the FF button is inhibited.
5. Via S5-3, D503 and R532, B+ turns on Q502 so that the REC button is inhibited.
6. Via S603, D514, D517 and R515, B+ turns on Q515 so that the motor rotates. Therefore, the starting of the motor is done instantly by pressing the FF button.

REW

The same manner as mentioned in FF.

REC

1. Press the FWD button while pressing the REC button. (Otherwise the REC button is inhibited.)
2. Via S602, S2 and R531, B+ turns on Q501.
3. Currents flow in the REC solenoid (PM2) and S5-2 turns on.
4. Via S5-2, D504 and R532, B+ turns on Q502 so that the REC button is inhibited.
   Via S5-2, D505 and R538, B+ turns on Q505 so that the FF button is inhibited.
   Via S5-2, D507 and R536, B+ turns on Q507 so that the REW button is inhibited.
   Via S5-2 and D515, B+ turns on Q509 so that the FWD button is also inhibited.
5. When keep on pressing the REC button, B+ via S602, S2 and R502 turns on Q503. Thus B+ via S5-2 is shunted through Q503 so that Q509 turns off and the FWD button is not inhibited. Consequently the REC-FWD mode is set.

STOP

When the STOP button is pressed, C508 charges and Q512 is ON until the gear of the mode selection mechanism contacts.

PAUSE

When the PAUSE button is pressed, C505 charges and Q513 is ON until the gear of the mode selection mechanism contacts.
The ON/OFF of the PAUSE is locked mechanically. S5-1 is ON when the PAUSE is ON mechanically. In PAUSE mode, turn off the POWER switch and turn it off again, via Ⓖ , C502, Q518 and R517 Q512 turns on and the PAUSE mode is released.

Button Inhibition

During the mode selection mechanism is working, buttons are inhibited.

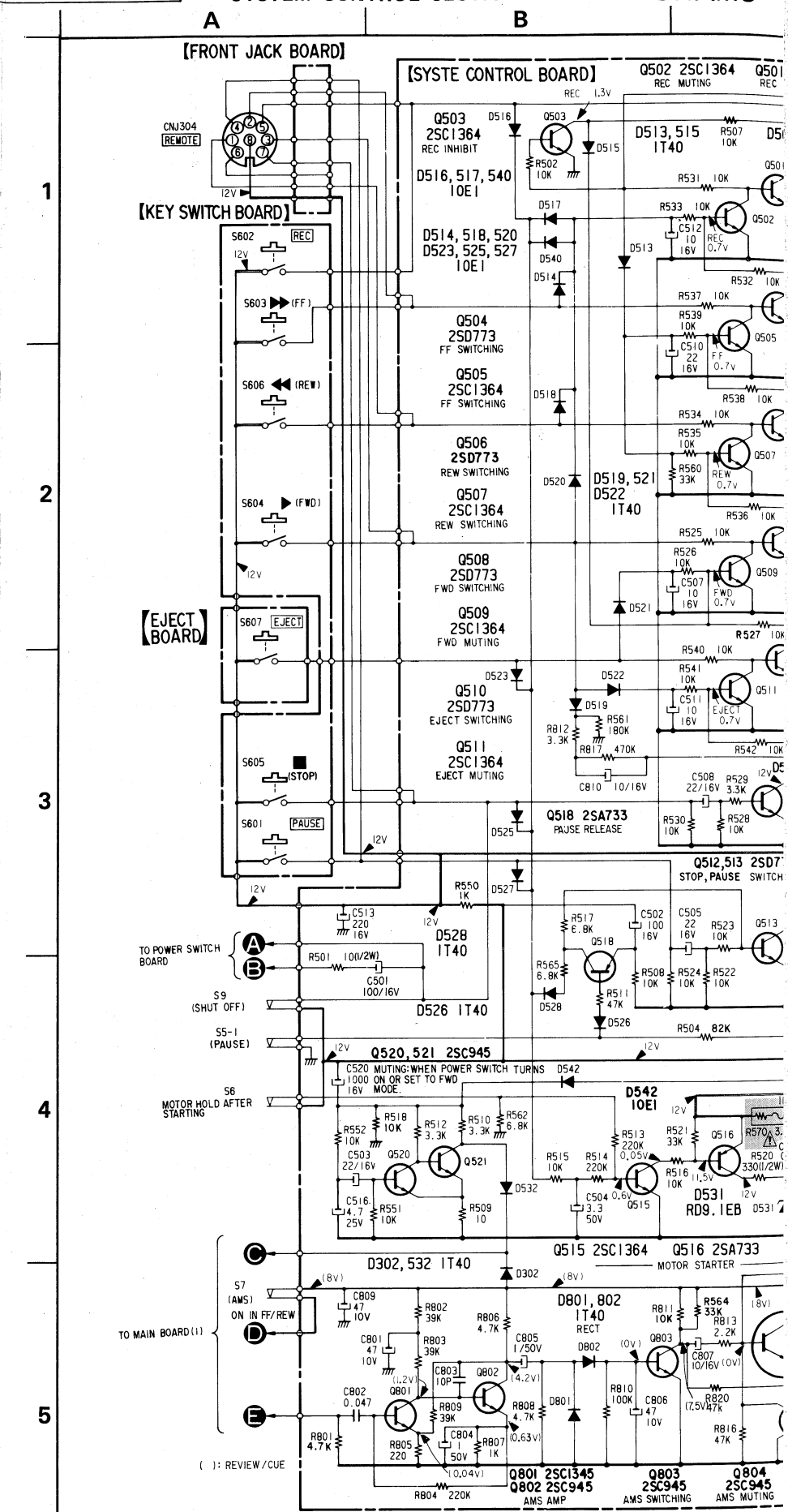
1. When the FF button is pressed, C512 charges through D514 instantly.
2. Then, C512 discharges through R533 and Q502 is ON so that the REC button is inhibited.
3. After the mode changed to FF, via S5-3, D503 and R532, Q502 turns on and the REC button is still inhibited.

Automatic Music Sensor

AMS function operates in CUE or REVIEW mode. The AMS searches for the blank space between selections.

1. Q801 and Q802 amplify signals from Ⓔ up to a clip-level.
2. D801 and D802 rectify and C806 charges.
3. When C806 charges up, Q803 and Q805 are ON. Then the AMS selenoid (PM8) energizes and releases the FF button or the REW button.
4. Muting:
   S7 is ON in the CUE or the REVIEW mode and B+ is supplied to the AMS circuit.
   Via D302, Ⓒ and D301, Q102 turns on and mutes.
5. In the REC mode:
   At the moment when the REC button is pressed, via D524 and R543 Q804 turns on and Q805 is muted.
   Then via S5-2 and R544, Q804 is ON and Q805 is muted.
6. When the FWD button is pressed in the CUE or REVIEW mode, via D519, R812 and R817, Q805 turns on and the AMS solenoid energizes so that the FF button or the REW button is released.

4-1. SCHEMATIC DIAGRAM – SYSTEM CONTROL SECTION –



Note: Th
⚠
par

REC

1. Press the FWD button while pressing the REC button. (Otherwise the REC button is inhibited.)
2. Via S602, S2 and R531, B+ turns on Q501.
3. Currents flow in the REC solenoid (PM2) and S5-2 turns on.
4. Via S5-2, D504 and R532, B+ turns on Q502 so that the REC button is inhibited.
   Via S5-2, D505 and R538, B+ turns on Q505 so that the FF button is inhibited.
   Via S5-2, D507 and R536, B+ turns on Q507 so that the REW button is inhibited.
   Via S5-2 and D515, B+ turns on Q509 so that the FWD button is also inhibited.
5. When keep on pressing the REC button, B+ via S602, S2 and R502 turns on Q503. Thus B+ via S5-2 is shunted through Q503 so that Q509 turns off and the FWD button is not inhibited. Consequently the REC-FWD mode is set.

STOP

When the STOP button is pressed, C508 charges and Q512 is ON until the gear of the mode selection mechanism contacts.

PAUSE

When the PAUSE button is pressed, C505 charges and Q513 is ON until the gear of the mode selection mechanism contacts.
The ON/OFF of the PAUSE is locked mechanically. S5-1 is ON when the PAUSE is ON mechanically. In PAUSE mode, turn off the POWER switch and turn it off again, via Ⓖ , C502, Q518 and R517 Q512 turns on and the PAUSE mode is released.

Button Inhibition

During the mode selection mechanism is working, buttons are inhibited.

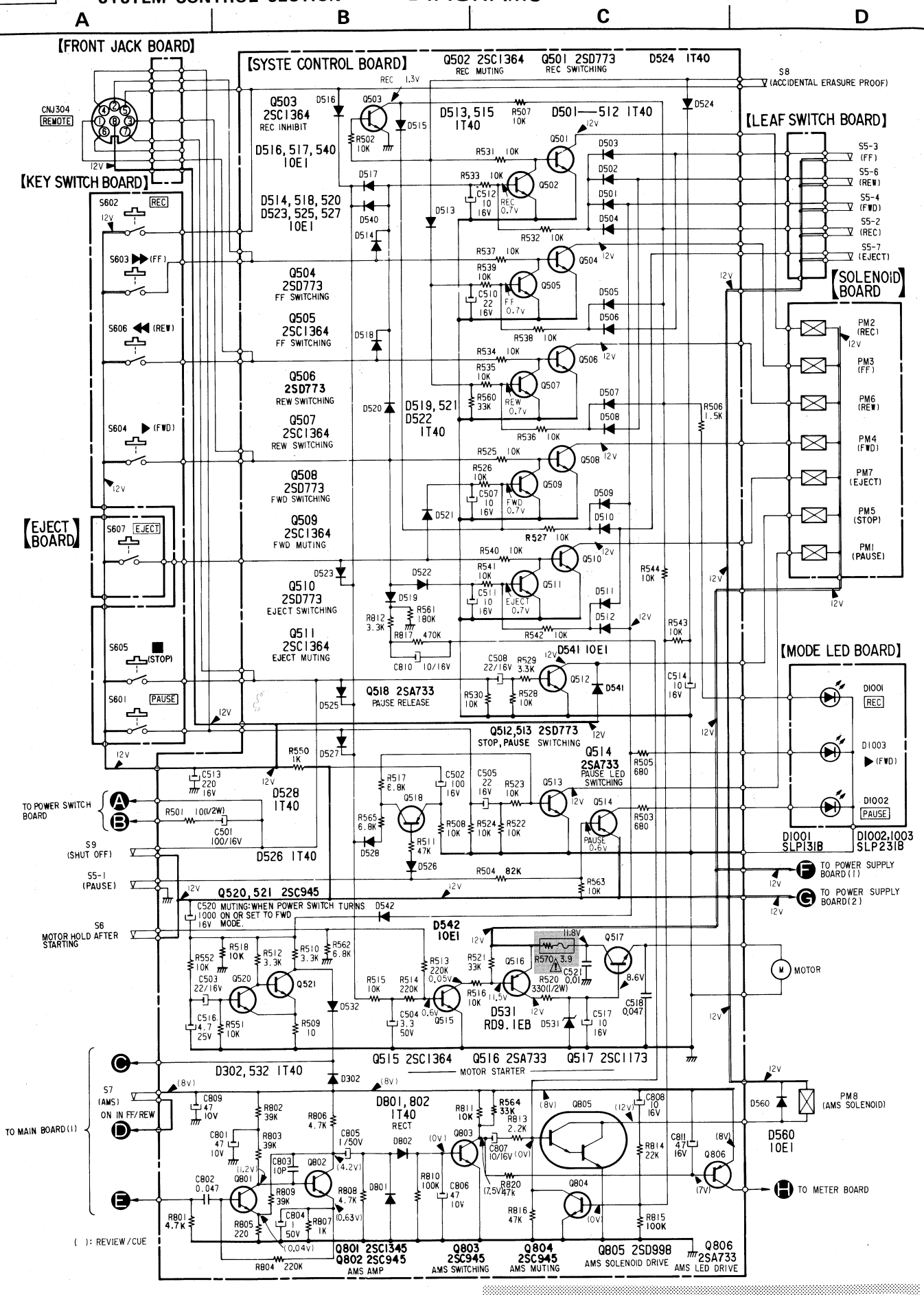
1. When the FF button is pressed, C512 charges through D514 instantly.
2. Then, C512 discharges through R533 and Q502 is ON so that the REC button is inhibited.
3. After the mode changed to FF, via S5-3, D503 and R532, Q502 turns on and the REC button is still inhibited.

Automatic Music Sensor

AMS function operates in CUE or REVIEW mode. The AMS searches for the blank space between selections.

1. Q801 and Q802 amplify signals from Ⓔ up to a clip-level.
2. D801 and D802 rectify and C806 charges.
3. When C806 charges up, Q803 and Q805 are ON. Then the AMS selenoid (PM8) energizes and releases the FF button or the REW button.
4. Muting:
   S7 is ON in the CUE or the REVIEW mode and B+ is supplied to the AMS circuit.
   Via D302, Ⓒ and D301, Q102 turns on and mutes.
5. In the REC mode:
   At the moment when the REC button is pressed, via D524 and R543 Q804 turns on and Q805 is muted.
   Then via S5-2 and R544, Q804 is ON and Q805 is muted.
6. When the FWD button is pressed in the CUE or REVIEW mode, via D519, R812 and R817, Q805 turns on and the AMS solenoid energizes so that the FF button or the REW button is released.

4-1. SCHEMATIC DIAGRAM – SYSTEM CONTROL SECTION –



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

4-2. MOUNTING DIAGRAM – SYSTEM CONTROL SECTION –

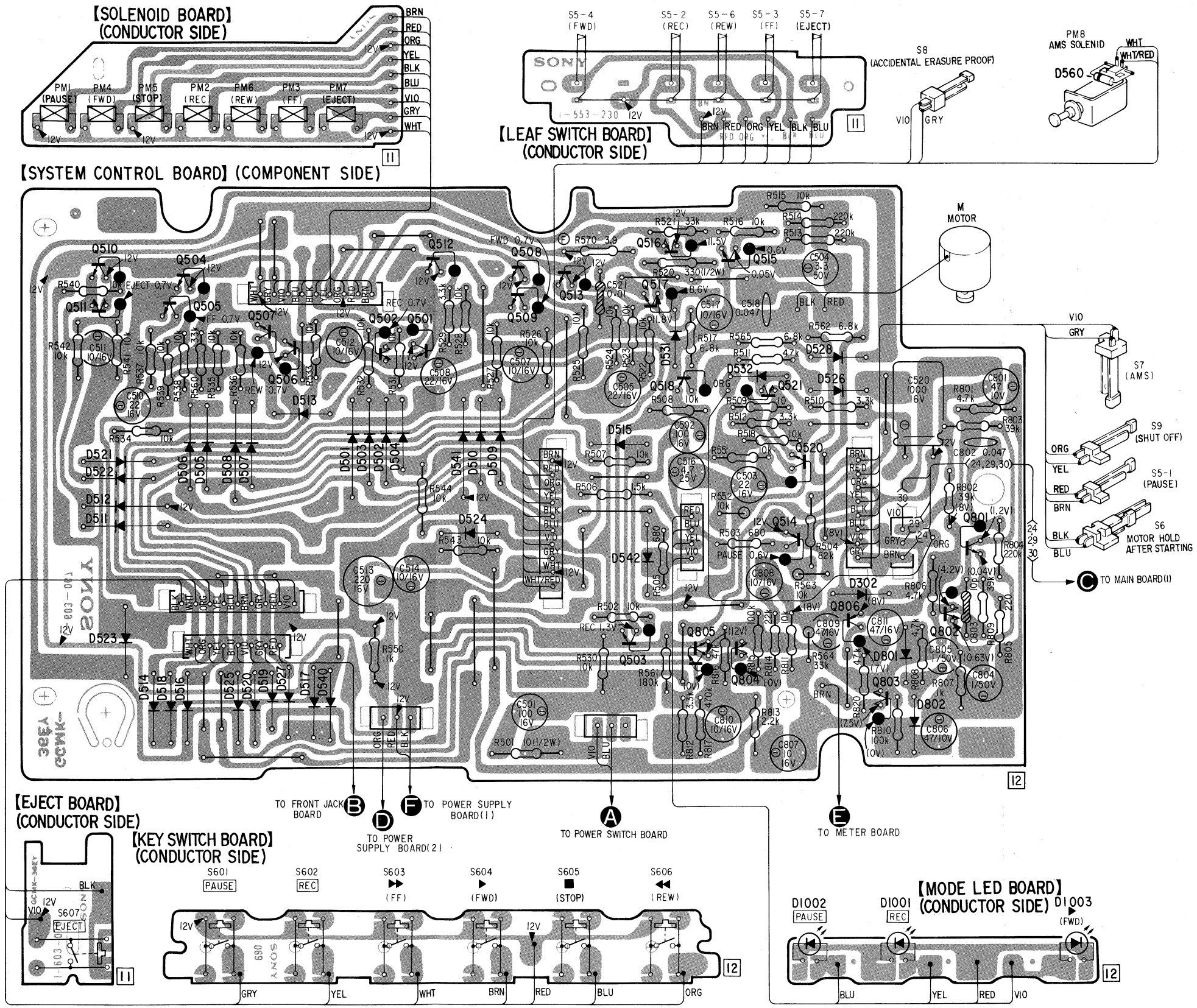
– Component Side –

See page 20 for semiconductor lead layouts.

Note:

- ○—: parts extracted from the component side.
- ▒▒▒ : B + pattern

Q	D
510 512 516,515 508 504 513 509 505 517 511 507 506,502,501 518 521 520 514 801 802 806 503 805,804 803	531 528 532 526 513 501–504 541,510,509 505–508 515 521 522 512 511 524 542 302 523 801 514,516–520 525,527,540 802 1001 – 1003



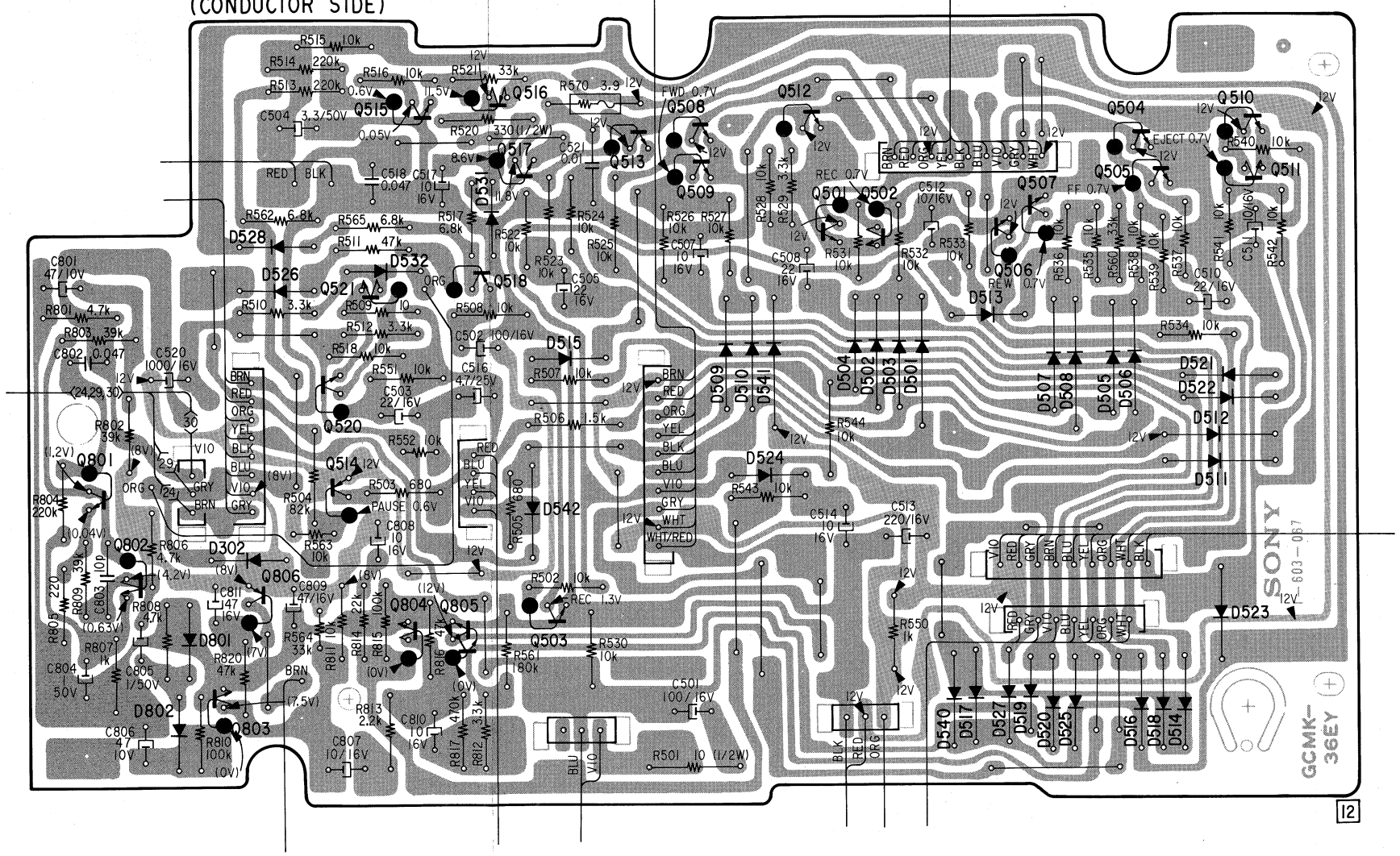
4-3. MOUNTING DIAGRAM
– Conductor Side –

A B C D E F

1 2 3 4 5

IC	801 802 803 806 520 514 521 515 804 805 516 518 517 503 513 508 509 512 501 502 506 507 504 505 510 511
D	801 802 302 528 526 532 531 542 515 509, 510, 541 524 501 – 504 513 540 517 527 519 505 – 508 520 525 516 518 514 512 511 521 522 523

【SYSTEM CONTROL BOARD】
(CONDUCTOR SIDE)



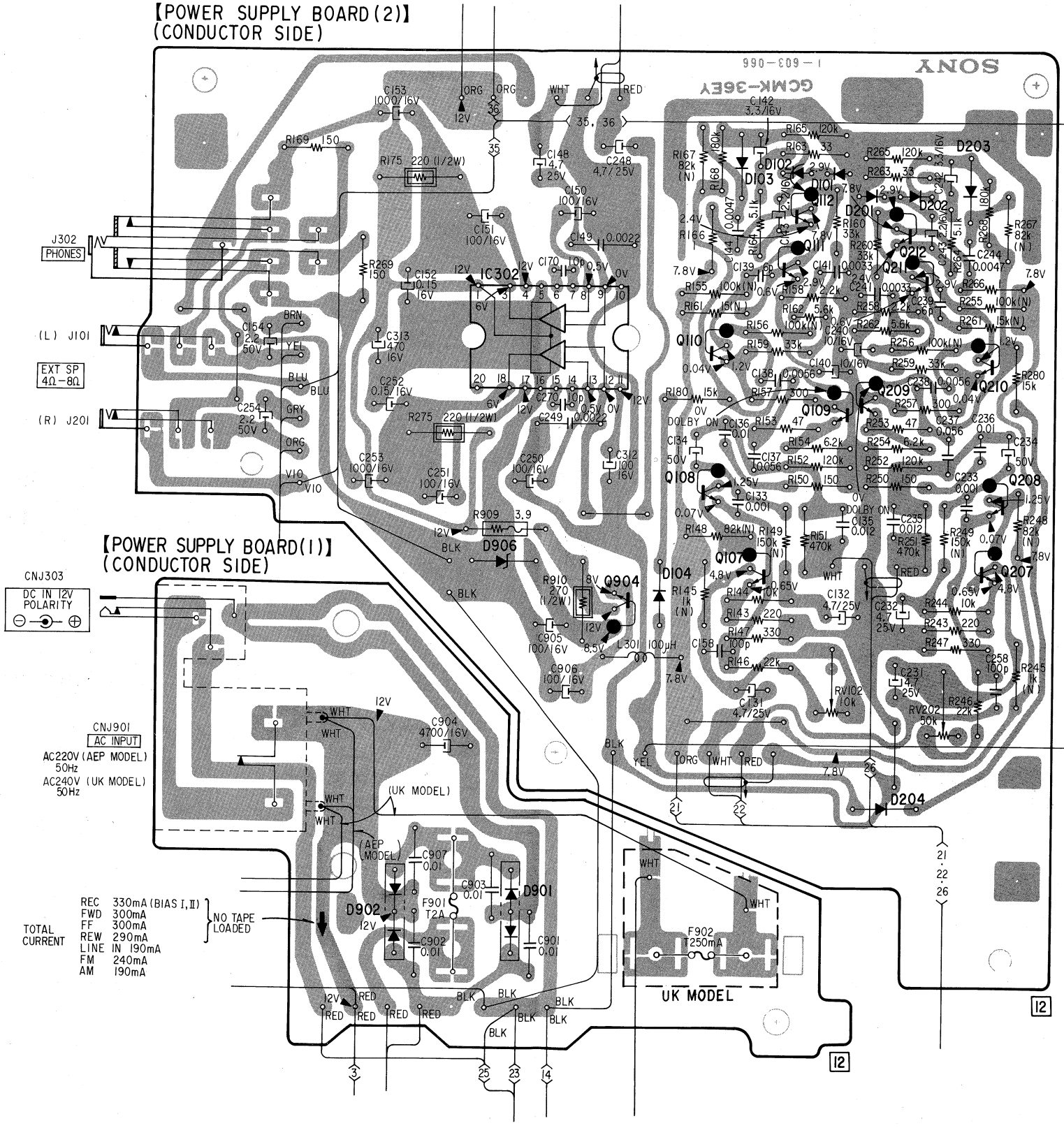
Note:

- ○—— indicates lead wire connection through the component side.
- ▒▒ : B+ pattern

4-4. MOUNTING DIAGRAM

– Conductor Side –

【POWER SUPPLY BOARD(2)】
(CONDUCTOR SIDE)

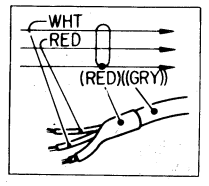


【POWER SUPPLY BOARD(1)】
(CONDUCTOR SIDE)

Q , IC	D
	103
	102, 101
	203
	201, 202
112	
212	
111	
211	
IC302	
110	210
109	209
108	208
107, 207	906
	104
904	
	204
	902, 901

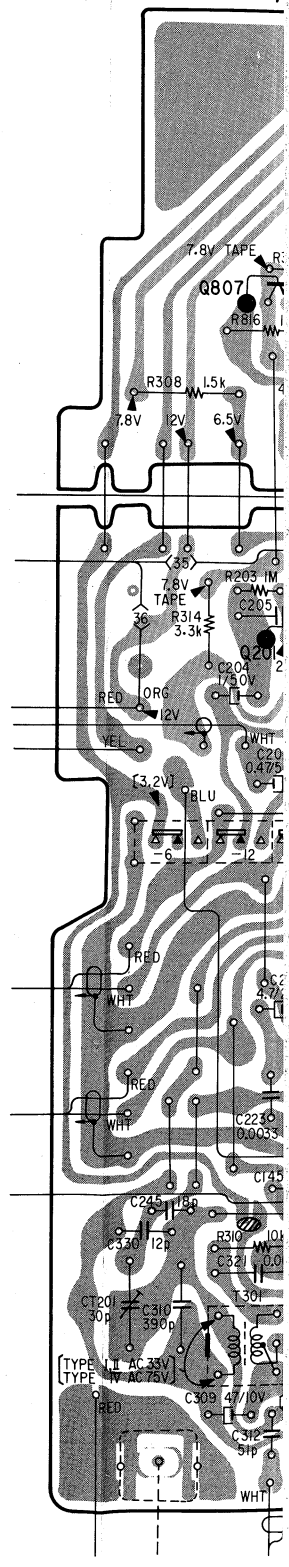
Note:

- Color code of sleeving over the end of the jacket.



- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- [ ]— : indicates side identified with part number.
- ▒ : B + pattern

【MAIN BOARD(2)】
(CONDUCTOR SIDE)



A B C D E F G H

Q IC: 807 201 205 206 101 304 105 106 102 202 213 IC301 204 113 203 303 306 305 302 104 103 114 214 IC2 IC1 5 6 4 3 2 1

D: 301 4 5 6 2 7 1 7 8

1 2 3 4 5

【SUB SWITCH BOARD】

【MAIN BOARD(2)】
(CONDUCTOR SIDE)

SONY GCMK-29EHB

S304 DOLBY NR · S302 TAPE RADIO · LINE IN PHONO · S303 EQ TAPE SELECT TYPE I NORM II CrO2 IV METAL · S305 BIAS I,II

SONY 603-C59 GCMK-29EHB

BAND S1 FM · S2 MW (0,7V) · S3 LW · S4 SW

FM TEL ANTENNA

FERRITE ROD ANTENNA L3 MW L4 LW

【MAIN BOARD(1)】
(CONDUCTOR SIDE)

[ ] IS RECORD

( ) IS AM

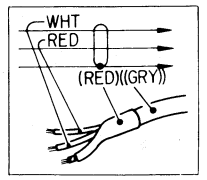
CNJ301 PHONO IN · CNJ302 LINE IN REC/PB · S308 LINE IN PHONO · S309 ISS · S301 RECORD/PLAYBACK PLAYBACK RECORD

4-5. MOUNTING DIAGRAM

— Component Side —

See page 20 for semiconductor lead layouts.

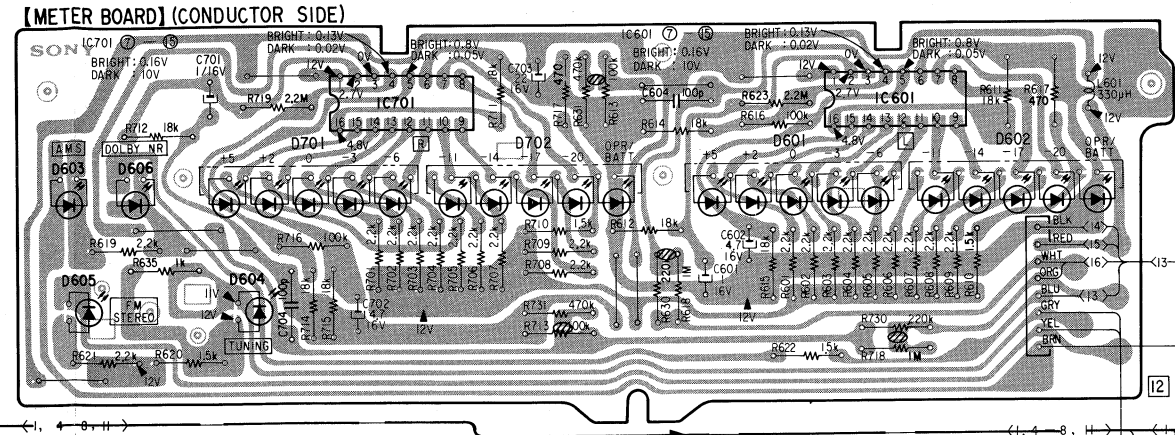
Note:
- ○—: parts extracted from the component side.
- ●—: parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- [ ]— : indicates side identified with part number.
- Color code of sleeving over the end of the jacket.

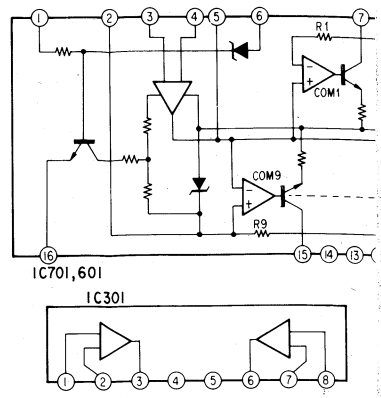


- ▒ : B+ pattern
- ▬▶▬ : signal path
- ▬▪▶ : L-CH signal path
- ▬▪▶ : R-CH signal path.

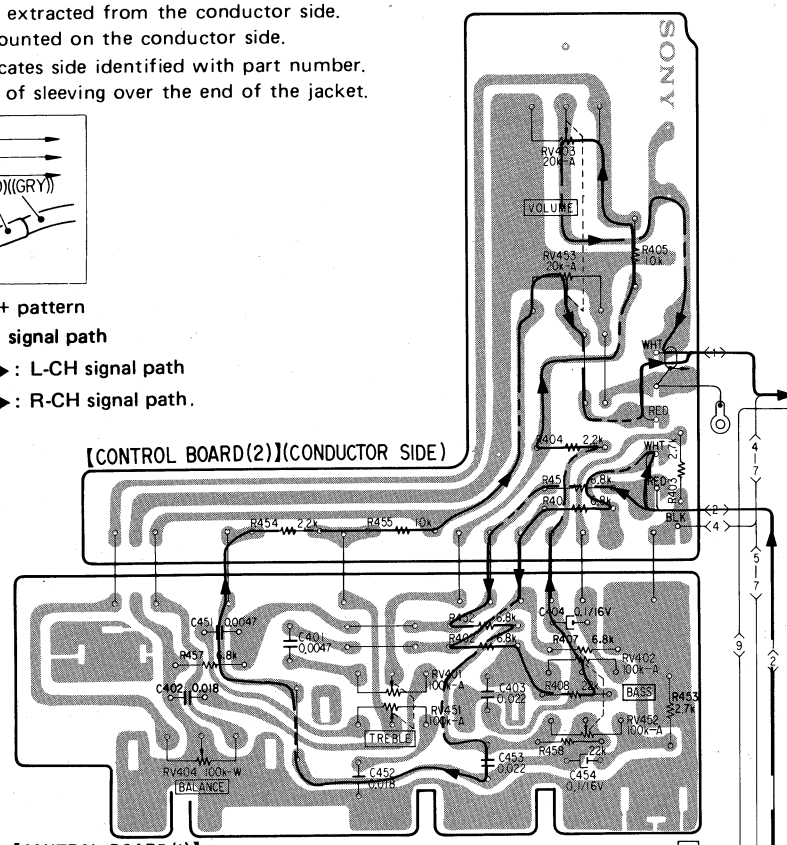
IC	D
701 601	603 606 701 702 601 602 605 604

【METER BOARD】(CONDUCTOR SIDE)

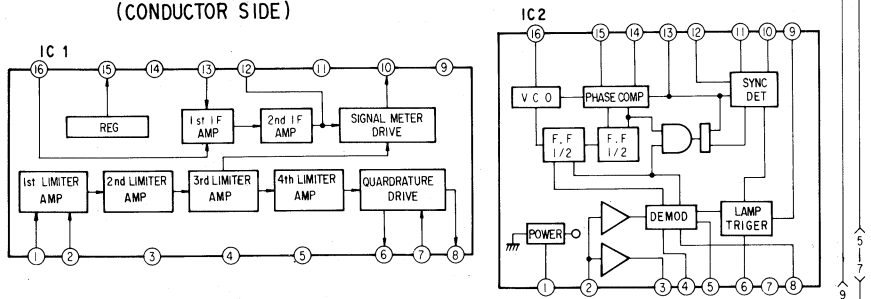




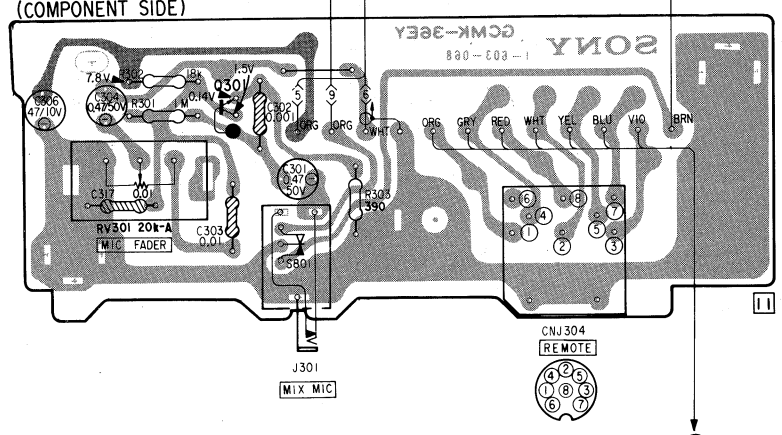
【CONTROL BOARD(2)】(CONDUCTOR SIDE)



【CONTROL BOARD(1)】
(CONDUCTOR SIDE)



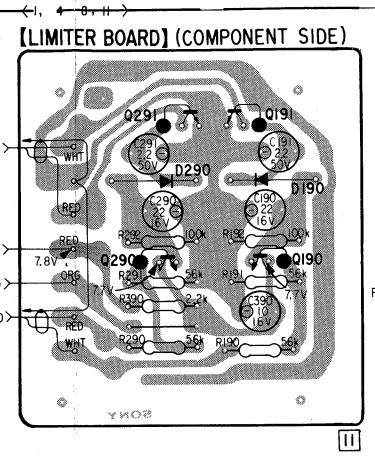
【FRONT JACK BOARD】
(COMPONENT SIDE)



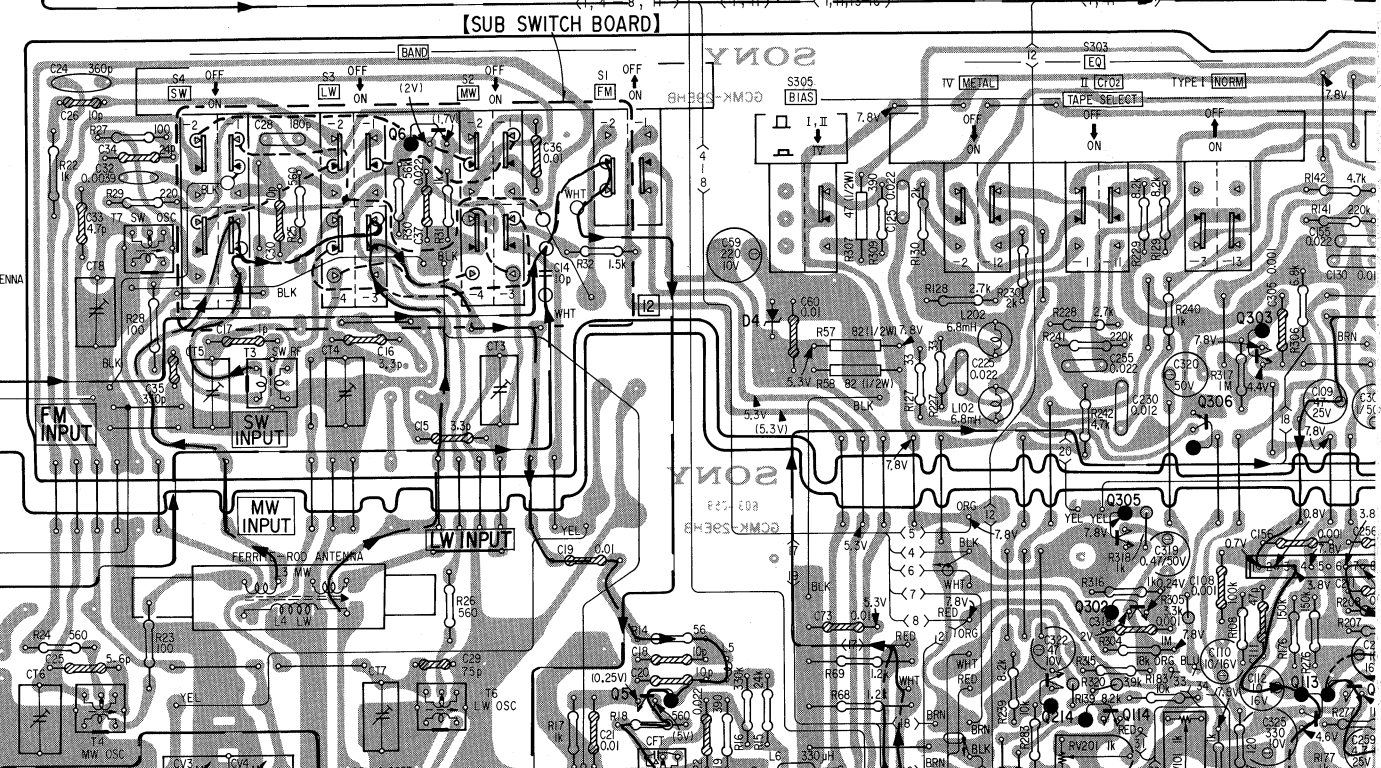
TO SYSTEM CONTROL BOARD

Q , IC	D
291 191	
6	290, 190
290 190	
807	4
303	
306	
305	
IC301	
101	
201	
302	
5 214 213	
113	
114	
104	
204	5
106 105	
206 205	
103 203	
IC2	
202	
IC1	301
102	
	6 2
304	7
8 7	

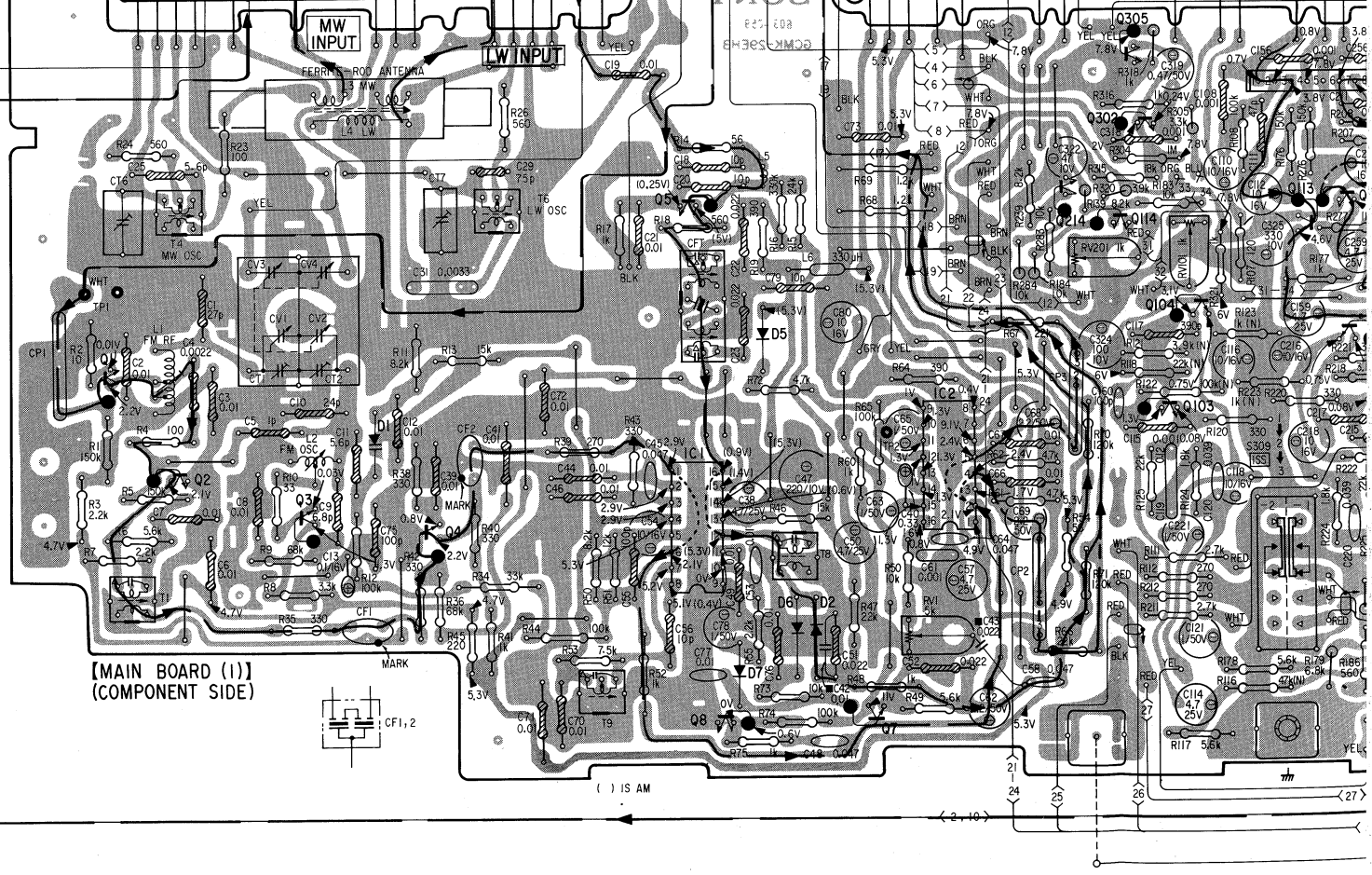
【LIMITER BOARD】(COMPONENT SIDE)



【SUB SWITCH BOARD】



【MAIN BOARD (1)】
(COMPONENT SIDE)



H I J K L M N O

1 2 3 4 5

IC701,601

IC301

【MIC BOARD】
(CONDUCTOR SIDE)

MIC101 (L)
MIC201 (R)

【POWER SWITCH BOARD】(CONDUCTOR SIDE)

S901 OPERATION
STANDBY ON REC MUTE

Q・IC	210 212 112 110 IC302 208 211 209 109 111 108 207 107 904
D	203 202 201 101 102 103 104 906 204 901 902

【MAIN BOARD (2)】
(COMPONENT SIDE)

【POWER SUPPLY BOARD (2)】
(COMPONENT SIDE)

【POWER SUPPLY BOARD (1)】
(COMPONENT SIDE)

PLAYBACK INPUT

DRY BATT SIZE "D" (IEC DESIGNATION R20) 8PCS, 12V

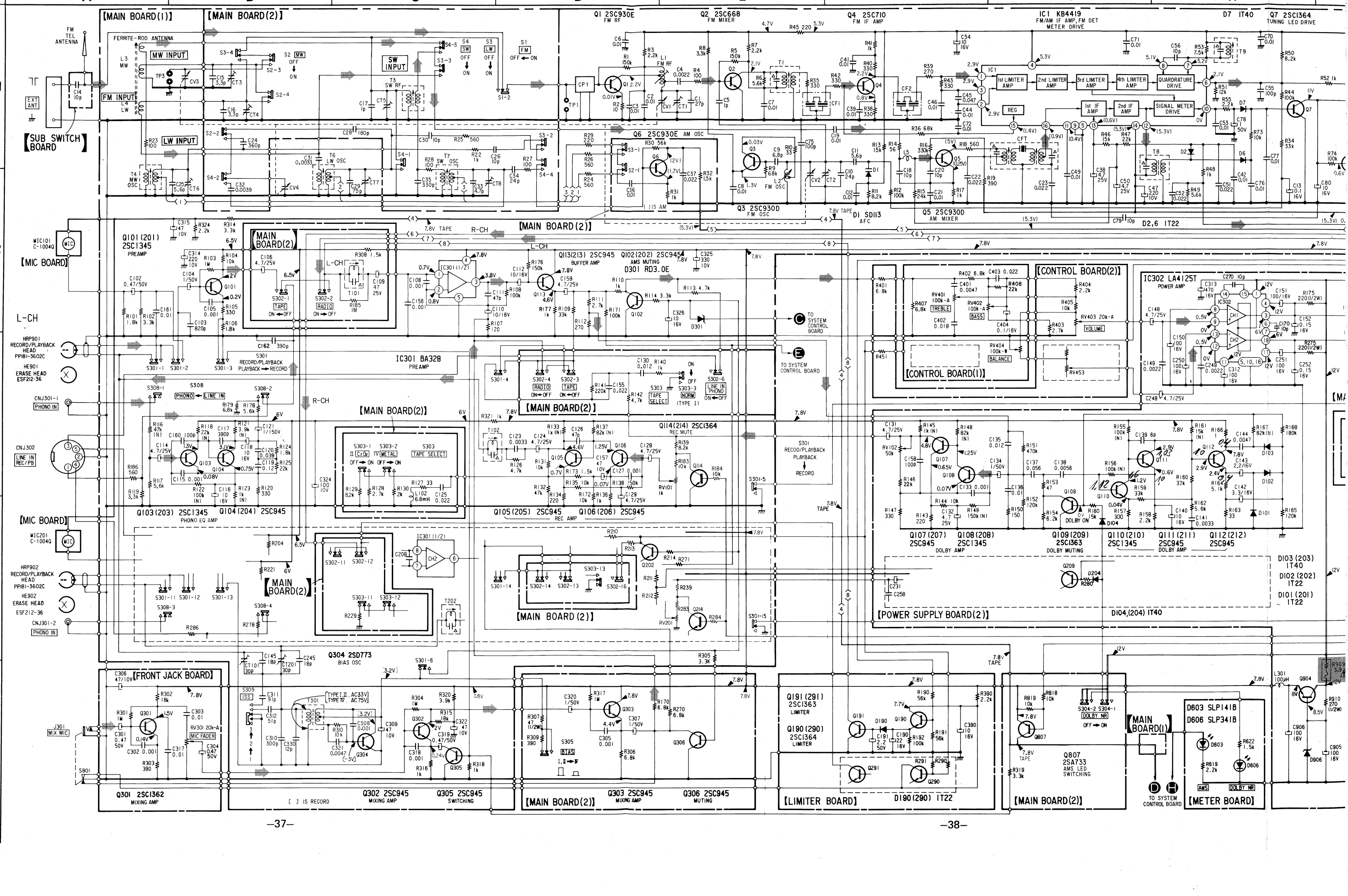
[ ] IS RECORD

TOTAL CURRENT
REC 330mA (BIAS I, II)
FWD 300mA
FF 300mA
REW 290mA
LINE IN 190mA
FM 240mA
AM 190mA
NO TAPE LOADED

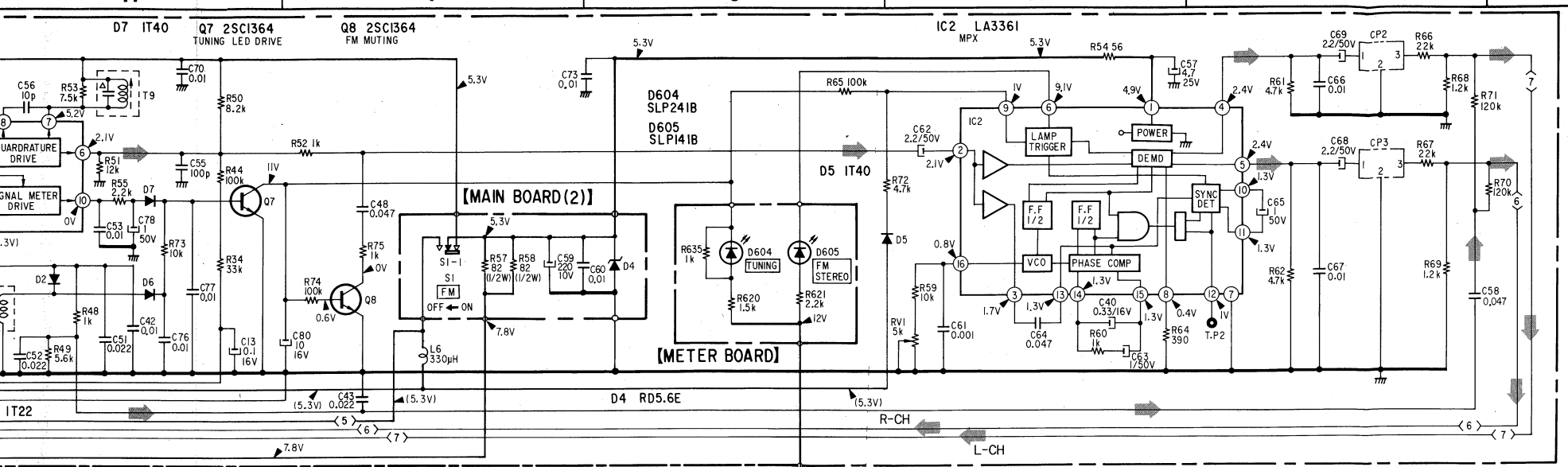
UK MODEL
【MAIN SWITCH BOARD】
(CONDUCTOR SIDE)

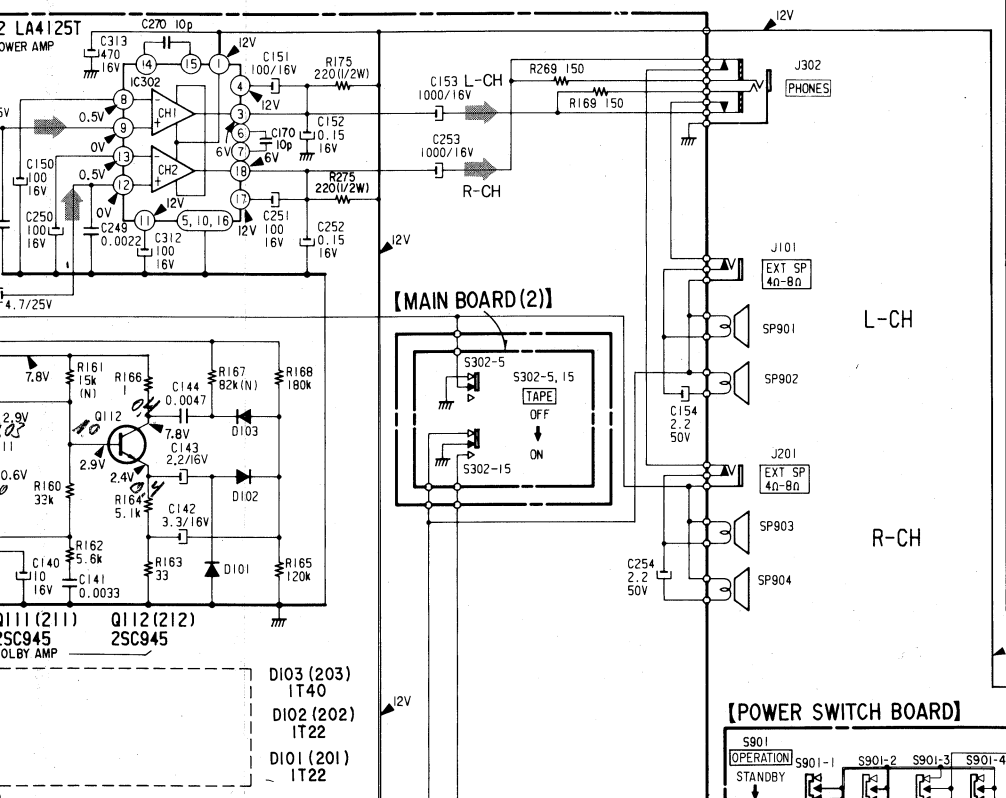
TO SYSTEM CONTROL BOARD

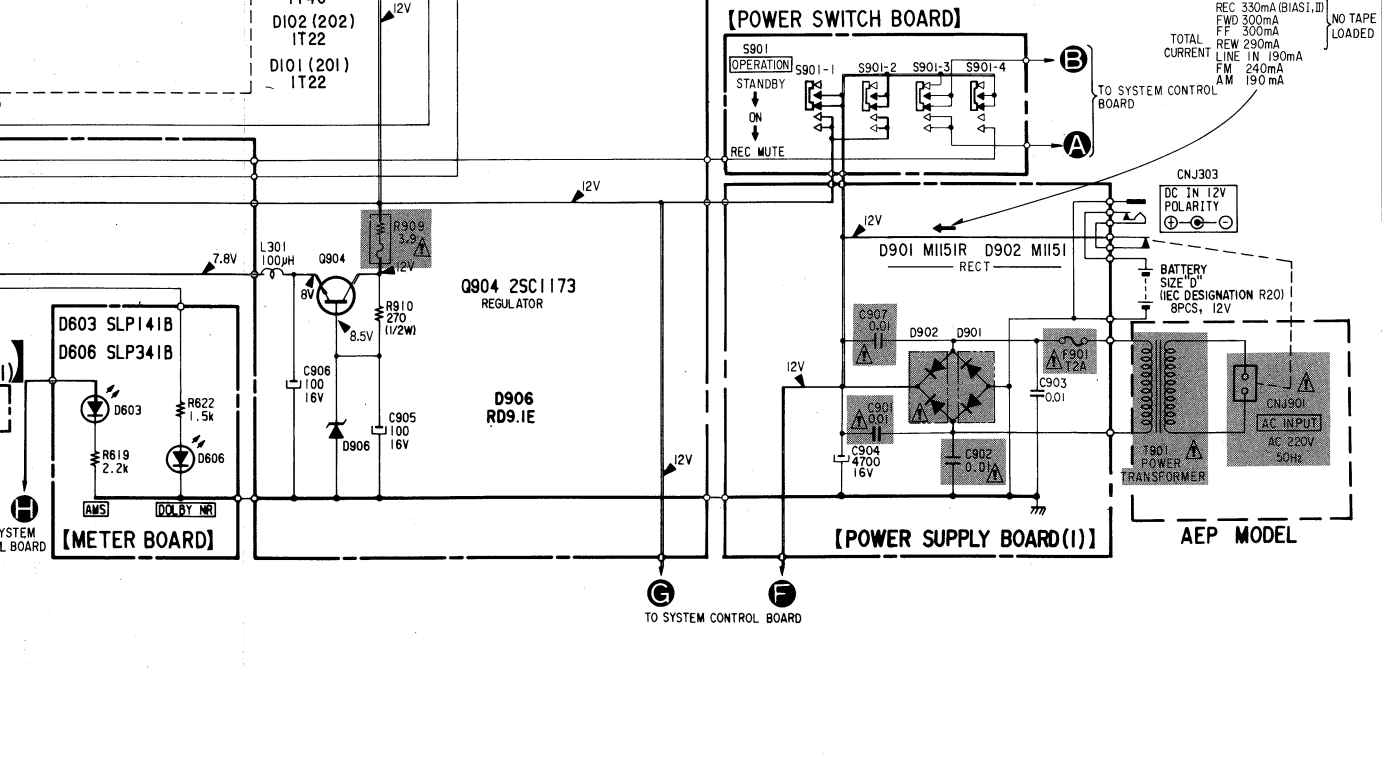
4-6. SCHEMATIC DIAGRAM

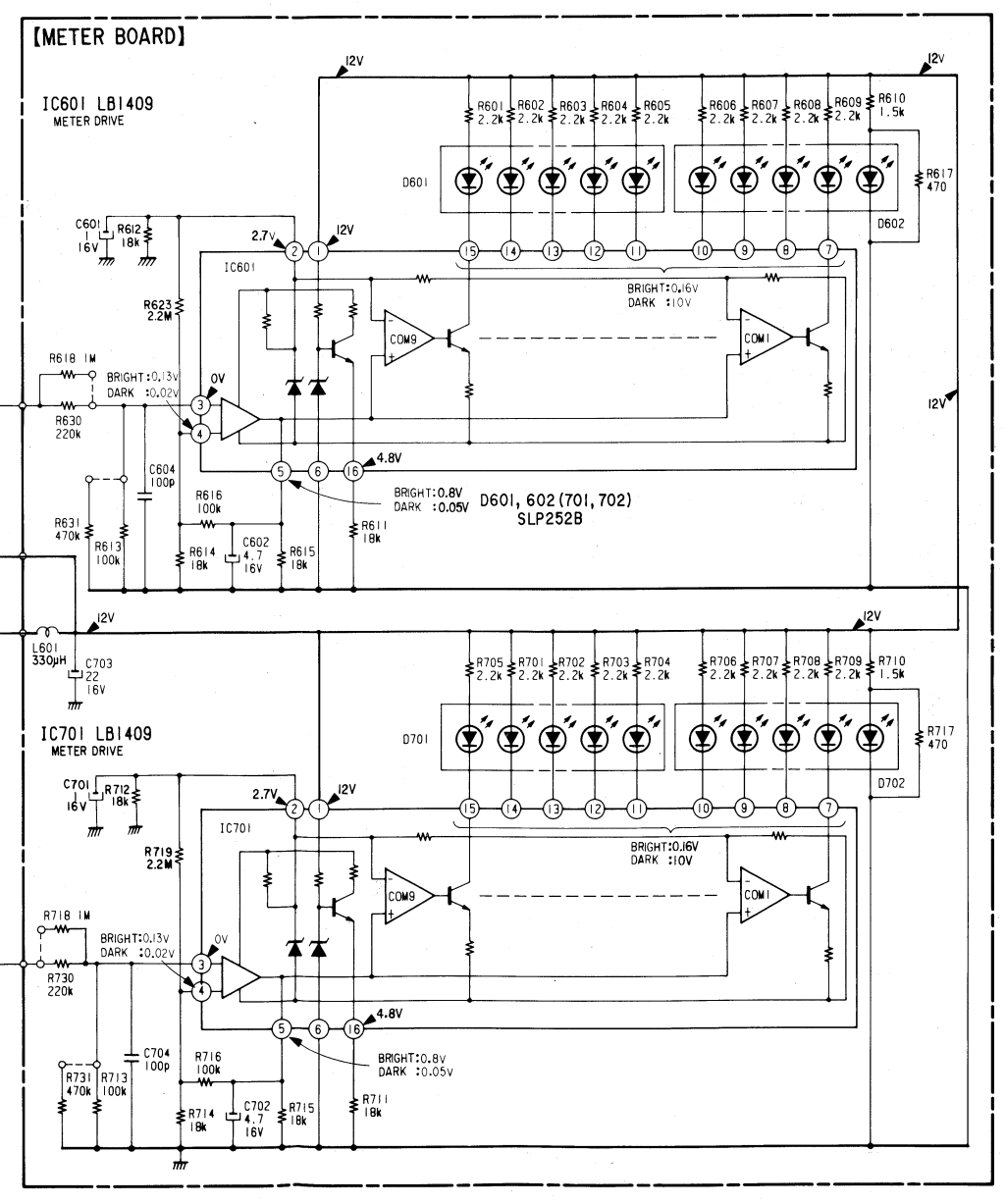


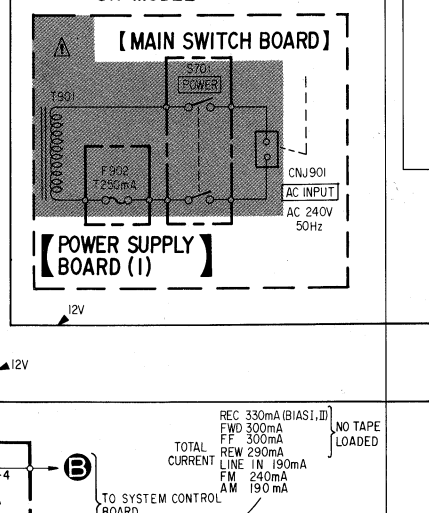
H I J K L M N











Note:

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- ⏀ △ : internal component.
- ▭ : panel designation.
- ——— : B+ bus.
- Readings are taken under no-signal (detuned) conditions with a VOM (20 kΩ/V).
  ( ) : AM
  [ ] : REC
- ➡ : signal path
- Switch

Ref. No.	Switch	Position
S1	FM	ON
S2	MW	OFF
S3	LW	OFF
S4	SW	OFF
S301	REC/PLAYBACK	PLAYBACK
S302-1, 3, 5, 11, 13, 15	TAPE	OFF
S302-2, 4, 12, 14	RADIO	ON
S302-6, 16	LINE IN, PHONO	OFF
S303-1, 11	CrO_2	OFF
S303-2, 12	METAL	OFF
S303-3, 13	NORM	ON
S304	DOLBY NR	OFF
S305	BIAS	IV
S308	PHONO/LINE IN	LINE IN
S309	ISS	1
S701	POWER	OFF (UK Model)
S901	OPERATION	OFF

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

5-1.

1-561-265-00 ⚠ Connector, input; AC/DC IN 12V (CNJ901) CNJ303)
♦3-561-011-00 Cover, connector 2P
1-532-203-00 ⚠ Fuse, T2A (F901)
♦1-603-370-00 Power Supply Board
BVTP 3 x 10
BVTP3 x 10
♦3-573-019-00 Bracket, AC/DC connector
1-533-131-00 Holder, fuse
1-507-578-00 Jack, EXT SP (J101, 201)
BVTP3 x 10
1-553-159-00 Switch, POWER (UK model) (S701)
1-507-670-00 Jack, PHONES (J302)
♦1-603-371-00 Power Switch Board (UK model)
♦A-3279-165-A Complete Circuit Board, power
3-571-449-00 Handle
BVTP 3 x 10
3-548-910-00 Side Plate, handle
B3 x 10
3-566-528-11 Washer, friction
3-551-936-00 Lock Screw
BV3 x 12
BVTP 3 x 10
BVTP3 x 10
3-701-455-11 Washer, plastic 7mm dia.
X-3571-415-1 (AEP model)
X-3571-413-1 (UK model)
Front Case Ass'y, including parts marked • A – E
B3 x 10
CS2.4
3-551-936-00 Lock Screw
3-566-528-11 Washer, friction
♦1-603-061-00 Printed Circuit Board, limiter
3-571-437-00 Joint Plate (B)
3-571-438-00 Joint Plate (A)
3-571-470-31 Case, rear
• D 3-571-485-00 Cushion
• C ♦3-571-471-00 Emblem, SONY
3-571-412-00 Knob, TONE
3-571-411-00 Knob, VOLUME
3-571-499-00 Washer, slider
3-571-410-00 Collar, knob
3-571-409-00 Knob, TUNING
3-571-413-00 Knob, MIC FADER
• B 3-571-466-00 Net, speaker
• A 3-571-461-00 Panel (2), indication
3-571-477-00 Knob, BALANCE
3-548-910-00 Side Plate, handle
♦3-573-021-00 Cover, transformer
3-701-445-11 Washer, plastic 7mm dia.
• E 9-911-840-XX Cushion (B)
3-571-435-00 Terminal, plus
PTPWH 3 x 12
3-571-468-00 Battery Case
X-3571-407-1 Lid Ass'y, battery case
3-571-436-00 Spring
♦3-573-027-00 Bracket, transformer
3-701-809-31 PTPWH3 x 8
BVTP3 x 16
⚠ 1-446-835-00 (UK model)
1-446-836-00 (AEP model)
Transformer, power (T901)
♦3-573-421-00 Bracket, transformer
3-571-478-00 (AEP model)
3-571-479-00 (UK model)
Label, specification
3-703-133-00 Tag, antenna caution
3-703-043-00 (UK model)
Label, main-caution
1-501-204-00 Telescopic Antenna
BVTP3 x 16
3-571-450-00 Heat Sink
♦3-571-434-00 Terminal, antenna
B3 x 10
1-561-235-00 Connector, 2P antenna
BVTP3 x 16

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

5-2.

♦(A-3279-164-A) Complete Circuit Board, system control
♦1-555-240-00 Lead with connector (9P)
1-553-193-00 Switch, push; PHONO/LINE IN, RADIO, TAPE (S302)
♦3-571-486-00 Sheet (M)
♦1-555-239-00 Connector with lead (7P)
♦1-555-238-00 Lead with connector (4P)
BVWH3 x 10
3-571-484-00 Spring
PSW3 x 6
BVTP 3 x 10
PS3 x 5
X-3571-401-0 Soft Eject Ass'y
♦3-571-431-00 Bracket, soft eject
BVTP3 x 16
♦1-555-266-00 Lead with connector (3P)
♦1-603-065-00 Printed Circuit Board, sub-switch
BV3 x 8
BVTP 3 x 10
♦3-571-406-00 Bracket (1)
P3 x 5
BV 3 x 10
BTPWH 3 x 10
BVTP 3 x 10
♦3-571-405-00 Bracket (2)
♦1-555-237-00 Lead with connector (3P)
1-553-478-00 Switch, push; FM, MW, LW, SW (S1–4)
3-571-495-00 Spring
3-571-482-00 Spring
BVTP 3 x 16
♦1-555-267-00 Lead with connector (3P)
1-141-196-00 Switch, pushbutton; EQ (S303)
BVTP3 x 10
X-3571-409-1 Holder Ass'y, cassette
3-571-404-00 Cam, drum release
3-571-433-00 Terminal, antenna
E5
1-552-379-00 Switch, push; DOBY, BIAS, (S304, 305)
♦1-603-059-00 Printed Circuit Board, main (A)
3-571-463-00 Chassis
3-701-445-11 Washer, 7mm dia.
3-817-114-00 Pulley
3-571-403-00 Knob, OPEN
3-571-417-00 Pulley
1-552-686-00 Switch, slide; record/playback (S301)
3-573-011-00 Label, cassette caution
3-571-408-00 Back Plate
♦3-571-444-00 Contact Piece
BVTP 3 x 10
BVTP 3 x 10
3-571-432-11 Tuning Shaft
3-566-514-00 Contact Plate, antenna
BVTP 3 x 8
3-571-432-00 Tuning Shaft
3-701-690-00 (UK model) Label, MADE IN JAPAN
1-509-549-00 Connector, LINE IN, REC/PB
BVTP3 x 12
♦3-573-017-00 Case, shield (B)
9-911-825-42 Dial Cord
3-430-219-00 Spring
1-401-882-00 Ferrite-rod Antenna (L3)
BVTP 3 x 12
BVTP 3 x 12
3-571-417-00 Pulley, relay
♦A-3260-086-A (AEP model)
A-3260-087-A (UK model)
Complete Circuit Board, main
BV3 x 10
♦3-564-554-00 Shield Case (B)
3-573-018-00 Cover, ISS
3-571-407-00 Dial Pointer
X-3571-408-1 Window Ass'y, cassette
3-536-819-00 Spring
♦3-573-016-00 Shield Plate (D)
1-507-671-00 Pin Jack, LINE IN/PHONO (CNJ301)
X-3571-402-0 Ground Terminal Ass'y
1-516-781-XX Switch, slide; ISS (S309)
♦3-573-015-00 Shield Plate (C)
9-911-825-42 Dial Cord 0.5mm dia.
W2.6
♦3-573-029-00 Table, pulley
PSW2.6 x 10
3-831-441-XX Cushion
3-573-012-00 Dial Drum
3-811-140-00 Pulley
1-553-267-00 Switch, slide; LINE IN/PHONO (S308)

5-3.

1-502-895-00
♦1-555-268-00 Lead with connector (8P)

1-553-267-00
Switch, slide; LINE IN/PHONO
(S308)

Pulley

3-571-140-00

Dial Drum

Cushion

1-555-268-00
Lead with connector (8P)

3-571-456-00
Holder (A), LED

PTPWH
3 x 10

3-571-422-00
Holder, drum

3-571-447-11
Knob

3-571-447-00
Knob

A-3279-158-A (AEP model)
A-3279-167-A (UK model)
Complete Circuit Board, meter

1-603-366-00
Printed Circuit Board,
key switch

3-571-451-00
Holder (B), LED

3-571-492-00
Cushion

3-571-460-00
Drum (A)

1-553-235-00
Switch, FF, REW, FWD, REC
PAUSE, STOP

3-513-076-XX
Spring

3-571-491-00
Retainer, connector

TO EXPLODED VIEW 5-2.

1-502-895-00
Speaker, woofer (SP902)

3-556-527-00
Ring

3-571-416-00
Bracket, speaker

PTPWH
3 x 10

1-502-884-00
Speaker, tweeter (SP901)

BVTP3 x 10

BVTP3 x 10

X-3571-405-1
Bracket Ass'y (E)

1-553-268-00
Switch, slide; OPERATION
(S901)

3-571-474-00
Knob (E), MANUAL
EJECT

X-3566-511-1
Knob Ass'y, OPERATION

3-566-569-00
Cover, knob

E2

BVTP
3 x 10

3-491-248-XX
Spring
(30T)

1-555-237-00
Cord with connector (3P)

1-603-368-00
Printed Circuit Board, L-ECM

3-573-004-00
Holder (L), microphone

B2.6 x 5

3-571-424-00
Knob, EJECT

1-603-070-00
Printed Circuit Board, eject

BV3 x 8

1-603-367-00
Printed Circuit Board,
power switch

3-571-423-00
Bracket, circuit board

8-814-198-91
Microphone; C-1004Q
(MIC101)

1-603-064-00
Printed Circuit Board,
model LED

3-571-475-00
Spring (B)

3-571-418-00
Knob, function

1-552-412-00
Switch, keyboard; EJECT
(S607)

3-571-419-00
Spring (A)

3-571-420-00
Knob, mode

3-701-769-00
Ornament

1-555-238-00
Lead with connector (4P)

1-603-369-00
Printed Circuit Board, R-ECM

3-571-446-00
Holder (R), microphone

8-814-198-91
Microphone, C-1004Q (MIC201)

1-502-884-00
Speaker, tweeter (SP903)

3-571-416-00
Bracket, speaker

BVTP3 x 10

3-566-527-00
Ring

1-502-895-00
Speaker, woofer (SP904)

PTPWH3 x 10

1-507-643-00
Jack, MIX MIC (J301)

BVTP
3 x 10

BVTP3 x 10

3-571-443-00
Stopper

1-561-468-00
Socket, connector; REMOTE
(CNJ301)

1-603-365-00
Printed Circuit
Board, jack

BVTP3 x 10

3-571-443-00
Stopper

1-226-748-00
Resistor, variable 20kΩ-A
; MIC FADER (RV301)

1-226-744-00
Resistor, variable 20/20kΩ-A;
VOLUME (RV403)

1-226-458-00
Resistor, variable 100/100kΩ-A;
BASS TREBLE (RV401, 402)

1-226-749-00
Resistor, variable 100kΩ-W;
BALANCE (RV404)

BVTP
3 x 10

3-571-489-00
Retainer, control

3-573-002-00
Reinforcement, stopper

BVTP3 x 10

3-571-443-00
Stopper

BVTP3 x 10

3-573-002-02
Reinforcement, stopper

1-603-074-00
Printed Circuit Board, control (A)

1-603-075-00
Printed Circuit Board, control (B)

BVTP3 x 10

3-573-002-02
Reinforcement, stopper

3-571-443-00
Stopper

BVTP3 x 10

3-571-443-00
Stopper

3-571-770-00
Lever, erase protection

1-514-346-00
Switch, leaf; AMS (S7)

3-571-771-00
Lock Plate, eject

3-583-541-00
Spring

E2

X-3571-731-0
Mechanism Chassis Ass'y

3-571-820-00
Spring

P2 x 4

X-3571-726-0
EJECT Lever Ass'y

X-3571-717-0
REC Slider Ass'y

3-642-491-00
Spring

3-571-832-00
Spring

3-571-792-00
FR Selection Lever

3-571-819-00
Spring

X-3571-701-0
FR Slider Ass'y

E2

3-571-805-00
Lever, erase head

3-571-832-00
Spring

E3

3-571-820-00
Spring

PTT2.6 x 5

▲D
3-557-449-00
S Gear (B)

8-658-099-03
Head, erase; ESF212-36
(HE901, 902)

3-571-754-00
Guide, cassette

▲F
3-559-408-00
Washer, 1.2mm dia.

3-571-716-00
Spring

3-701-468-00
2 x 4

X-3571-702-0
Slider Ass'y, supply

X-3571-728-0
Supply Reel Spindle Ass'y
including parts marked ▲ A – K

▲K

▲B
3-557-439-00
FR Gear (A)

3-571-803-00
Chassis, head

3-571-754-00
Guide, cassette

Steel Ball 2mm dia.

3-583-514-00
Washer

E1.2

3-571-760-00
Bracket, head

PTT
2.6 x 5

3-571-748-00
Spring

PTT2.6 x 5

3-506-040-XX
Belt, tape counter

3-571-811-21
Spring

3-513-237-01 (t0.13)
3-513-237-11 (t0.25)
Shim, adjustment

Lug, 3mm
dia.

1-548-532-00
Tape Counter

3-571-824-00
Spring

3-701-465-00
PWH2 x 8

3-539-237-00
Spring

▲H
3-701-436-01
Washer, t0.13
1.6mm dia.

8-829-373-30
Head, PP181-3602C
(HRP901, 902)

X-3571-703-0
FWD Slider Ass'y

3-571-767-00
Spindle, supply reel

P2 x 4

▲C
3-557-440-00
FR Gear (B)

▲G
3-701-436-11
Washer, t0.25
1.6mm dia.

3-571-823-00
Spring

3-480-160-00
Spring

3-558-708-01
Washer

▲A
3-547-667-00
Spring

▲J
X-3571-725-0
FR Lever (B) Ass'y

▲I
X-3571-724-0
FR Idler Ass'y

X-3571-722-0
Brake Slider Ass'y

▲E
3-559-408-00
Washer, 1.2mm dia.

3-571-821-00
Spring

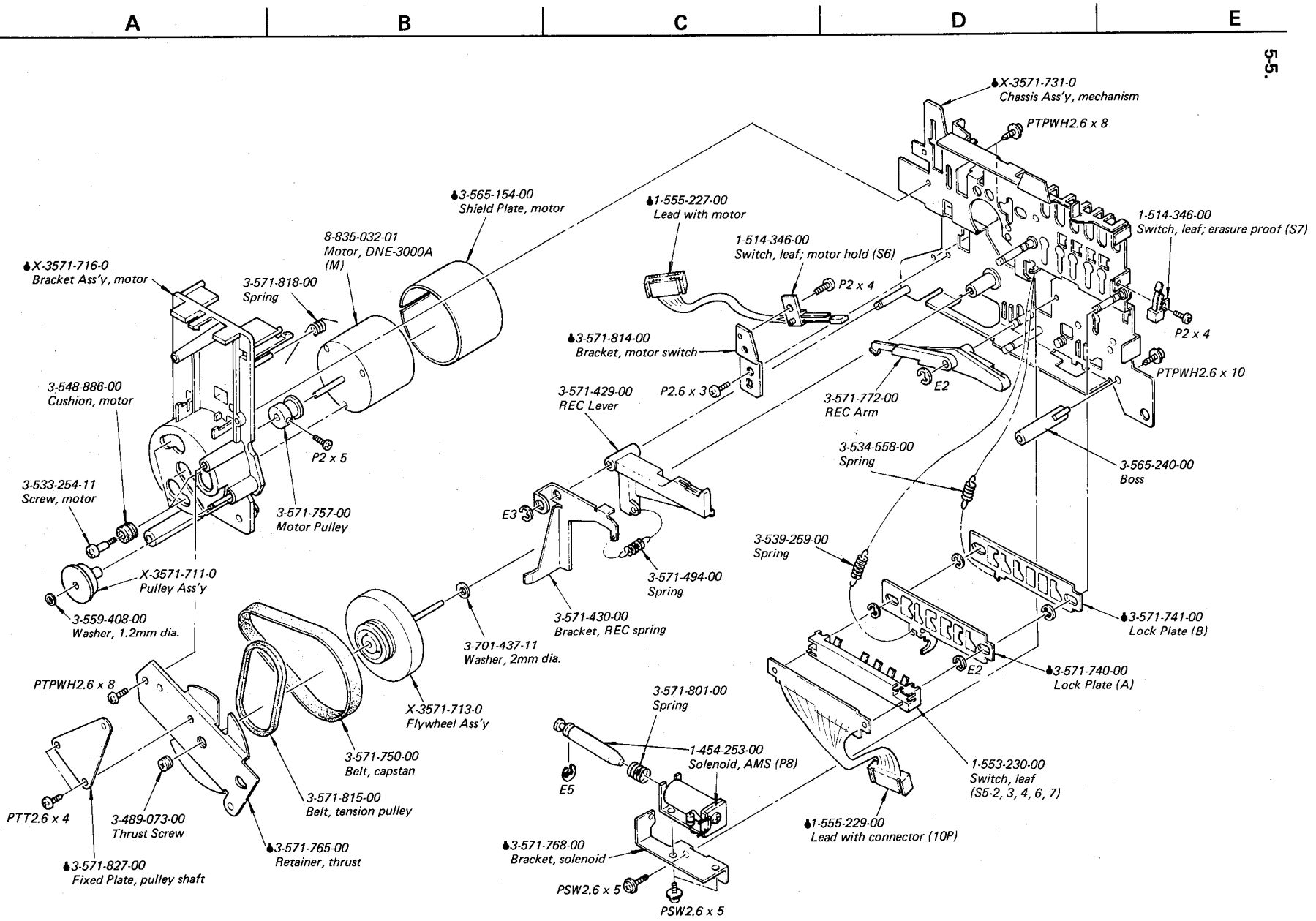
3-642-491-00
Spring

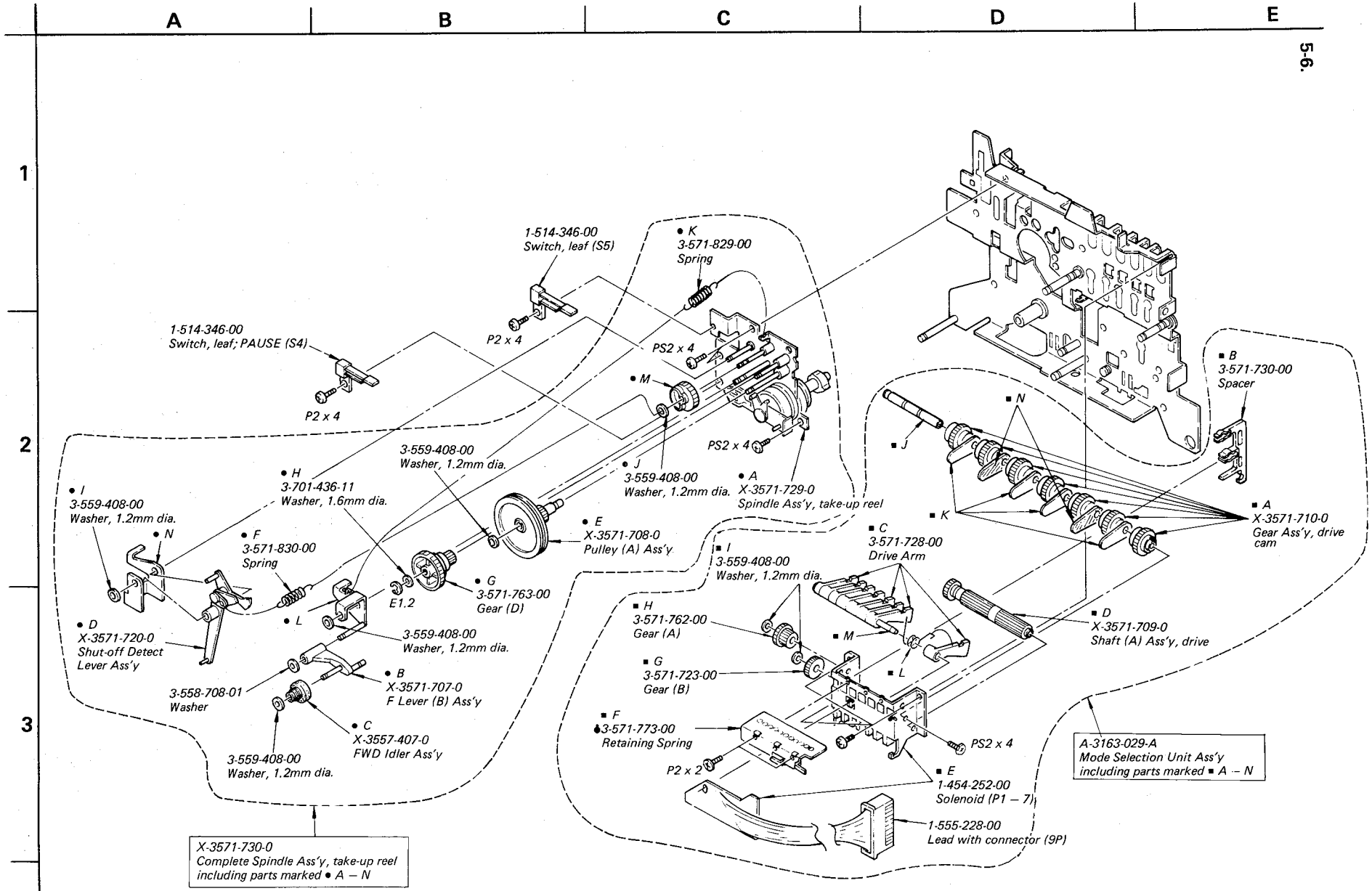
3-571-817-00
Spring

X-3571-705-0
Pinch Roller Ass'y

X-3571-718-0
PAUSE Slider Ass'y

3-558-708-21
Washer


A
B
C
D
E
1
2
3
4
X-3571-731-0
Chassis Ass'y, mechanism
PTPWH2.6 x 8
1-514-346-00
Switch, leaf; erasure proof (S7)
P2 x 4
PTPWH2.6 x 10
3-565-154-00
Shield Plate, motor
8-835-032-01
Motor, DNE-3000A
(M)
X-3571-716-0
Bracket Ass'y, motor
3-571-818-00
Spring
1-555-227-00
Lead with motor
1-514-346-00
Switch, leaf; motor hold (S6)
P2 x 4
3-571-814-00
Bracket, motor switch
P2.6 x 3
3-571-772-00
REC Arm
E2
3-571-429-00
REC Lever
3-548-886-00
Cushion, motor
P2 x 5
3-533-254-11
Screw, motor
3-571-757-00
Motor Pulley
E3
3-534-558-00
Spring
3-565-240-00
Boss
3-539-259-00
Spring
X-3571-711-0
Pulley Ass'y
3-559-408-00
Washer, 1.2mm dia.
3-571-494-00
Spring
3-571-430-00
Bracket, REC spring
3-701-437-11
Washer, 2mm dia.
3-571-741-00
Lock Plate (B)
E2
3-571-740-00
Lock Plate (A)
PTPWH2.6 x 8
X-3571-713-0
Flywheel Ass'y
3-571-801-00
Spring
1-454-253-00
Solenoid, AMS (P8)
E5
3-571-750-00
Belt, capstan
3-571-815-00
Belt, tension pulley
1-553-230-00
Switch, leaf
(S5-2, 3, 4, 6, 7)
PTT2.6 x 4
3-489-073-00
Thrust Screw
3-571-765-00
Retainer, thrust
1-555-229-00
Lead with connector (10P)
3-571-827-00
Fixed Plate, pulley shaft
3-571-768-00
Bracket, solenoid
PSW2.6 x 5
PSW2.6 x 5


A
B
C
D
E
1
2
3
4
1-514-346-00
Switch, leaf (S5)
P2 x 4
1-514-346-00
Switch, leaf; PAUSE (S4)
P2 x 4
• K
3-571-829-00
Spring
PS2 x 4
• M
PS2 x 4
3-559-408-00
Washer, 1.2mm dia.
• H
3-701-436-11
Washer, 1.6mm dia.
• J
3-559-408-00
Washer, 1.2mm dia.
• A
X-3571-729-0
Spindle Ass'y, take-up reel
• I
3-559-408-00
Washer, 1.2mm dia.
• N
• F
3-571-830-00
Spring
• E
X-3571-708-0
Pulley (A) Ass'y
E1.2
• G
3-571-763-00
Gear (D)
• L
3-559-408-00
Washer, 1.2mm dia.
• D
X-3571-720-0
Shut-off Detect
Lever Ass'y
3-558-708-01
Washer
• B
X-3571-707-0
F Lever (B) Ass'y
• C
X-3557-407-0
FWD Idler Ass'y
3-559-408-00
Washer, 1.2mm dia.
X-3571-730-0
Complete Spindle Ass'y, take-up reel
including parts marked • A – N
■ B
3-571-730-00
Spacer
■ N
■ J
■ K
■ A
X-3571-710-0
Gear Ass'y, drive
cam
■ C
3-571-728-00
Drive Arm
■ I
3-559-408-00
Washer, 1.2mm dia.
■ H
3-571-762-00
Gear (A)
■ M
■ D
X-3571-709-0
Shaft (A) Ass'y, drive
■ G
3-571-723-00
Gear (B)
■ L
■ F
3-571-773-00
Retaining Spring
PS2 x 4
P2 x 2
■ E
1-454-252-00
Solenoid (P1 – 7)
1-555-228-00
Lead with connector (9P)
A-3163-029-A
Mode Selection Unit Ass'y
including parts marked ■ A – N

SECTION 6
ELECTRICAL PARTS LIST

Ref. No.	*Part No.*	*Description*
	SEMICONDUCTORS	
	Transistors	
Q1–2	8-729-803-04	2SC930
Q3	8-729-806-84	2SC668
Q4	8-729-671-14	2SC710-14
Q5	8-729-803-04	2SC930
Q6	8-729-803-04	2SC930
Q7, 8	8-729-663-47	2SC1364
Q101, 201	8-729-334-58	2SC1345
Q102, 202	8-729-663-47	2SC1364
Q103, 203	8-729-334-58	2SC1345
Q104–107, Q204–207	8-729-663-47	2SC1364
Q108, 208	8-729-334-58	2SC1345
Q109, 209	8-729-660-37	2SC1363 blue
Q110, 210	8-729-334-58	2SC1345
Q111–113, Q114, 214, Q211–213, Q190, 191, Q290, 291	8-729-663-47	2SC1364
Q301	8-729-665-47	2SC1362
Q302, 303	8-729-663-47	2SC1364
Q304	8-729-177-32	2SD773
Q305, 306	8-729-663-47	2SC1364
Q501	8-729-177-32	2SD773
Q502, 503	8-729-663-47	2SC1364
Q504	8-729-177-32	2SD773
Q505	8-729-663-47	2SC1364
Q506	8-729-177-32	2SD773
Q507	8-729-663-47	2SC1364
Q508	8-729-177-32	2SD773
Q509	8-729-663-47	2SC1364
Q510	8-729-177-32	2SD773
Q511	8-729-663-47	2SC1364
Q512, 513	8-729-177-32	2SD773
Q514	8-729-612-77	2SA1027R
Q515	8-729-663-47	2SC1364
Q516	8-729-612-77	2SA1027R
Q517	8-729-217-33	2SC1173
Q518	8-729-612-77	2SA1027R
Q520, 521	8-729-663-47	2SC1364
Q801	8-729-665-47	2SC1362
Q802–804	8-729-663-47	2SC1364
Q805	8-729-199-80	2SD998
Q806	8-729-612-77	2SA1027R
Q807	8-729-612-77	2SA1027R
Q904	8-729-217-33	2SC1173
	ICs	
IC1	8-759-944-19	KB4419
IC2	8-759-833-61	LA3361
IC301	8-759-932-80	BA328
IC302	8-759-801-25	LA4125T
IC601, 701	8-759-804-09	LB1409
	Diodes	
D1	8-719-768-71	1S2687S
D2	8-719-815-55	1S1555
D4	8-719-156-25	RD5.6E
D5, 6, 7	8-719-815-55	1S1555
D101, 201, D102, 202	8-719-422-21	1T22AM
D103, 203, D104, 204	8-719-815-55	1S1555
D190, 290	8-719-422-21	1T22AM
D301	8-719-130-07	RD3.0E
D302, D501–528	8-719-815-55	1S1555
D531	8-719-191-07	RD9.1E
D532	8-719-815-55	1S1555
D542	8-719-200-02	10E2
D560	8-719-200-02	10E2
D603	8-719-900-41	SLP141B
D604	8-719-922-41	SLP241B
D605	8-719-900-41	SLP141B
D606	8-719-903-41	SLP341B
D801, 802	8-719-815-55	1S1555
D901	⚠ 8-719-501-34	S3VC40R

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
D902	⚠ 8-719-500-34	S3VC40
D906	8-719-191-07	RD9.1E
D1001	8-719-901-31	SLP131B
D1002	8-719-902-31	SLP231B
D1003	8-719-902-31	SLP231B
D601, 701	1-806-013-11	SLP152B
D602, 702	1-806-013-11	SLP152B

CAPACITORS

All capacitors are in μF. Common capacitors are omitted. Refer to the lists on pages 50 and 51 for their part numbers.

C901–903	⚠ 1-161-051-00	0.01	25V	ceramic
C904	⚠ 1-123-327-00	4,700	16V	electrolytic
C907	⚠ 1-161-051-00	0.01	25V	ceramic
CT1, 2	1-151-364-11	Tuning		
CT4, 7	1-141-171-00	Trimmer		
CT3,5,6,8	1-141-179-00	Trimmer		
CT101, 201	1-141-181-11	Trimmer		
CV1–4	1-151-364-11	Tuning		

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers.
kΩ : 1000Ω, MΩ : 1000kΩ

R570, 909	⚠ 1-212-948-00	3.9	½W	fusible
RV1	1-226-235-00	5k-B, adjustable		
RV101, 201	1-226-233-00	1k-B, adjustable		
RV102, 202	1-226-238-00	50k-B, adjustable		
RV301	1-226-748-00	20k-A, variable; MIC FADER		
RV401, 402	1-226-458-00	100k/100k-A, variable; BASS TREBLE		
RV403, 453	1-226-744-00	20k/20k-A, variable; VOLUME		
RV404	1-226-749-00	100k-W, variable; BALANCE		

MISCELLANEOUS

CF1, 2	1-527-184-XX	Ceramic Filter, 10.7MHz
CFT	1-403-827-00	Ceramic Filter, IF

Ref. No.	Part No.	Description
CNJ302	1-509-549-00	LINE IN, REC/PB Connector
CNJ304	1-561-468-00	Socket, connector; REMOTE (DIN 8P)
CNJ301-1, 2	1-507-671-00	Pin Jack 2P; PHONO IN
CNJ303, CNJ901	⚠ 1-561-264-00	Connector, input; AC/DC IN 12V
CP1	1-231-286-00	Bandpass Filter
CP2, 3	1-231-303-00	Lowpass Filter
J101, 201	1-507-578-00	Jack, EXT SP
J301	1-507-643-00	Jack, MIX MIC
J302	1-507-670-00	Jack, PHONES
HE901,902	8-658-099-03	Erase Head, ESF212-36
HRP901,902	8-829-373-30	Head, record/playback; PP181-3602C
L1	● 1-425-867-00	Coil, FM RF
L2	1-459-266-00	Coil, with core
L3, 4	1-401-883-00	MW/LW Ferrite-rod Antenna
L5	1-407-181-XX	Microinductor
L6	1-408-092-00	Microinductor, 330μH
L102, 202	1-408-217-00	Microinductor, 6.8mH
L301	1-408-080-00	Microinductor, 100μH
L601	1-408-201-00	Microinductor, 330μH
M	8-835-032-01	Motor, DNE-3000A
MIC101,201	8-814-198-91	Microphone, C-1004Q
PM1–7	1-454-252-00	Solenoid
PM8	1-454-253-00	Solenoid, AMS
S1–4	1-553-478-00	Switch, push; FM, LW, SW, MW
S8	1-514-346-00	Switch, leaf; erasure proof
S6, 7, 9	1-514-346-00	Switch, leaf
S5-1–5,6,7	1-553-230-00	Switch, leaf
S301	1-552-686-00	Switch, slide; record/playback
S302	1-553-193-00	Switch, push; PHONO RADIO TAPE
S303	1-553-196-00	Switch, push; NORM METAL CrO_2
S304, 305	1-552-379-00	Switch, push; AMS DOLBY BIAS
S308	1-553-267-00	Switch, slide; LINE IN/PHONE
S309	1-516-781-XX	Switch, slide; ISS
S601–606	1-553-235-00	Switch, keyboard; EJECT FF REW FWD REC PAUSE

● Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
S607	1-552-412-00	Switch, keyboard; EJECT
S701	1-553-159-00	Switch, POWER (UK model)
S901	1-553-268-00	Switch, slide; OPERATION
SP901, 903	1-502-895-00	Speaker, woofer 16cm
SP902, 904	1-502-884-00	Speaker, tweeter 5cm
T1	1-403-872-00	FM IFT
T3	1-401-538-00	SW RF Coil
T4	1-405-520-00	MW OSC Coil
T6	1-405-772-00	Coil, LW osc
T7	1-405-745-00	Coil, SW2 osc
T8	1-403-137-00	IFT
T9	1-404-249-00	Coil, FM
T101, 201 T102, 202	1-409-334-00	Trap Coil
T301	1-433-222-00	Bias Osc Transformer
T901	⚠ 1-446-836-00	Transformer, power (AEP model)
	⚠ 1-446-835-00	Transformer, power (UK model)
F901	⚠ 1-532-203-00	Fuse, 2A
F902	⚠ 1-532-273-00	Fuse, T250mA (UK model)
	1-501-204-00	Telescopic Antenna
	1-533-131-00	Holder, fuse
	♦1-535-120-00	Terminal with base (7P)
	1-548-532-00	Tape Counter
	♦1-560-081-00	Connecter Pin (3P)
	♦1-560-082-00	Connecter Pin (4P)
	♦1-560-085-00	Connecter Pin (7P)
	♦1-560-086-00	Connecter Pin (8P)
	♦1-560-087-00	Connecter Pin (9P)
	♦1-560-088-00	Connecter Pin (10P)
	♦1-560-095-00	Connecter Pin (8P)

Complete Circuit Boards

♦A-3260-086-A	Main (AEP model)
♦A-3260-087-A	Main (UK model)
♦A-3279-164-A	System Control
♦A-3279-165-A	Power
♦A-3279-158-A	Meter

Note:

- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description

Printed Circuit Board

♦1-603-059-00	Main (A)
♦1-603-060-00	Main (B)
♦1-603-061-00	Limiter
♦1-603-062-00	Meter
♦1-603-063-00	Power Switch
♦1-603-064-00	Mode LED
♦1-603-065-00	Switch, sub
♦1-603-066-00	Power
♦1-603-067-00	System Control
♦1-603-365-00	Jack
♦1-603-366-00	Key Switch
♦1-603-367-00	Eject
♦1-603-368-00	Microphone (L)
♦1-603-369-00	Microphone (R)
♦1-603-370-00	Power Supply
♦1-603-074-00	Control (A)
♦1-603-075-00	Control (B)

Lead with connectors

♦1-555-227-00	8P
♦1-555-228-00	9P
♦1-555-229-00	10P
♦1-555-237-00	3P
♦1-555-238-00	4P
♦1-555-239-00	7P
♦1-555-240-00	9P
♦1-555-266-00	3P
♦1-555-267-00	3P
♦1-555-268-00	8P

ACCESSORIES AND PACKING MATERIALS

Part No.	Description
⚠ 1-534-840-XX	Cord, power; DK-38 (AEP model)
⚠ 1-551-218-00	Cord, power; DK-50 (UK model)
1-561-235-00	Connector, 2P antenna
3-566-582-00	Bag, protection
3-571-476-00	Cushion
3-573-031-00	Carton
3-701-630-00	Bag, plastic
3-783-100-11	Manual, instruction
8-893-521-10	Tape, CD-810

ELECTROLYTIC CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	–	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	–	–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00	–	–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

CAP. (pF)	RATING							
	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

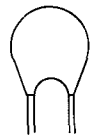
0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.				
	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

MYLAR CAPACITORS

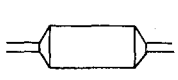
CAP. (μF)	RATING 50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.	CAP. (μF)	50 VOLT. PART No.	100 VOLT. PART No.	200 VOLT. PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

CAP. (μF)	RATING 3.15 VOLT. PART No.	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	20 VOLT. PART No.	25 VOLT. PART No.	35 VOLT. PART No.
	→ : Use the high voltage rated one.						
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			

TANTALUM CAPACITORS



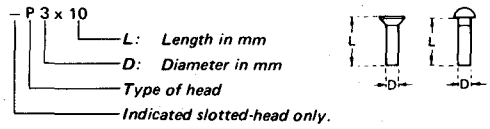
CAP. (μF)	RATING 3 VOLT. PART No.	6.3 VOLT. PART No.	10 VOLT. PART No.	16 VOLT. PART No.	20 VOLT. PART No.	35 VOLT. PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–	–	1-131-256-00	–	1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22	–	–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/4 WATT CARBON RESISTORS

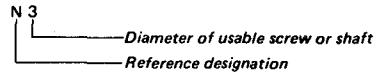
Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

Sony Corporation

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80H0475-1
Printed in Japan